

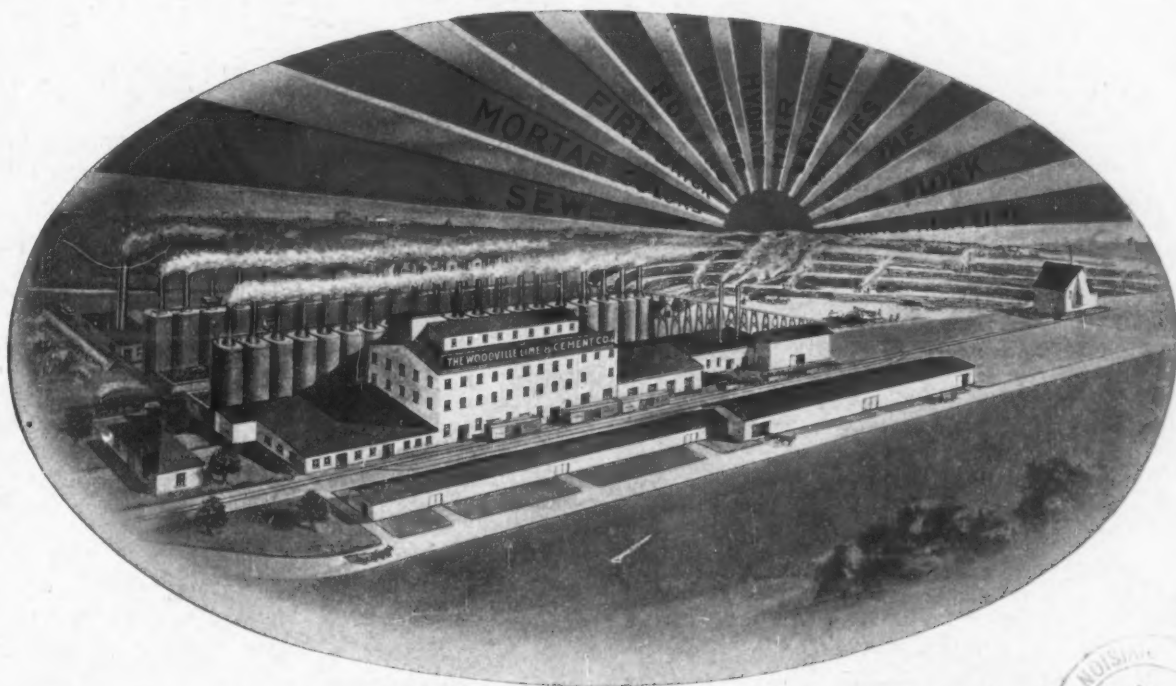
Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV.

CHICAGO, ILL., MAY 7, 1914.

Number 1.



"THE BEST UNDER THE SUN"

MANUFACTURERS OF

White Enamel Finish Hydrated Lime
White Lily Finish Hydrated Lime
Polar Bear "Alca" Stucco
Enamel "Alca" Plaster
Lump Lime

WHOLESALEERS OF

Hard Wall Plaster
Keene's Cement
Mortar Colors
Sewer Pipe
Roofings

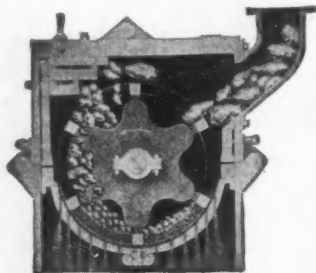
The Woodville Lime & Cement Company
1341-50 Nicholas Bldg., Toledo, Ohio

Demonstration Plant

entirely at your disposal, where we will be pleased to illustrate the following facts:

The Gardner Crusher

1. Is of the hammer type.
2. Will crush any kind of material.
3. Requires comparatively very low power for its capacity.
4. Needs no special foundations and is easily transported (Heaviest piece in No. 1 is only 350 lbs.)



Made in Four Sizes

Size	Weight Lbs.	Power	Feed	Capacity (Tons per Hr.)
No. 0	1,200	5-6 h. p.	3 in.	1-1½
No. 1	2,000	10-12 h. p.	4 in.	3-4
No. 2	4,000	20-22 h. p.	6 in.	8-10
No. 3	8,000	40-45 h. p.	10 in.	15-20

Equipped with ½ in. screen through which everything will pass.

90% through 20 mesh. 60% through 60 mesh.
75% through 40 mesh. 50% through 100 mesh.
65% through 50 mesh. 30% through 200 mesh.

Coarser or finer product can be obtained by changing the screens and speed of machine.

There are now a large number of Gardner Crushers in actual operation in the U. S. on all kinds of material. We, therefore, know by practical knowledge what our machine will do on most any material and we are prepared to prove our assertions.

Gardner Crusher Co. OFFICE: Fitzgerald Bldg.,
43rd. St. and Broadway
Demonstration Plant: 556 West 34th Street, New York

THE WHITACRE FIREPROOFING CO.

Manufacturers and Erectors of

Hollow Tile Fireproofing

The Largest Independent Manufacturers of Hollow Tile Fireproofing in the United States.

All our Ohio Product is Manufactured from Pure Ohio Fire Clay.

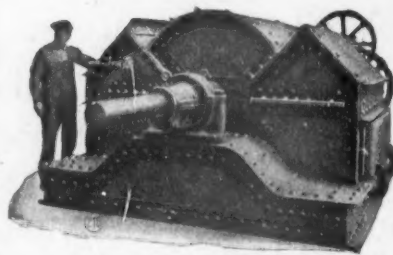
All Size Partitions, Jumbo and Hollow Brick.

Our heavy Dove Tail Hollow Blocks are designed especially for fireproof residences with stucco finish. They are suitable for any part of the building and are adapted to the various architectural designs.

**Without Our Estimate You Have
No Competition**

General Office: Waynesburg, Ohio
Chicago Office: Sales Department, 538 So. Dearborn St., Chicago, Ill.
Factories: Waynesburg, Ohio; Maivern, Ohio; Chicago Heights, Ill.

"PENNSYLVANIA" HAMMER CRUSHERS



For Pulverizing Limestone, Lime, Cement Rock, Marl, Shale, Etc.

Main Frame of steel, "Ball and Socket" Self aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running. No other hammer Crusher has such a big Safety Factor.

PENNSYLVANIA CRUSHER CO.
Philadelphia
New York Pittsburgh



"HERCULES"

For underground masonry, cisterns, reservoirs, pits, coal and grain pockets.

Watertight, sanitary, hard and dustless floors.

Used with sand and cement to produce a waterproof mortar which will bond perfectly to new or old masonry and permanently waterproof, even if plastered on the inside of a cellar, where the water pressure is outside.

Hercules Colored Coatings; Plaster-bond and Damp-proofing Mastic.

WATERPROOFING

HERCULES WATERPROOF CEMENT CO.
BUFFALO, NEW YORK



Service

"Service" is the biggest word in the Building Material Business.

"Wheeling" Wall Plaster quality has been proven long ago. Now we want to prove our "SERVICE."

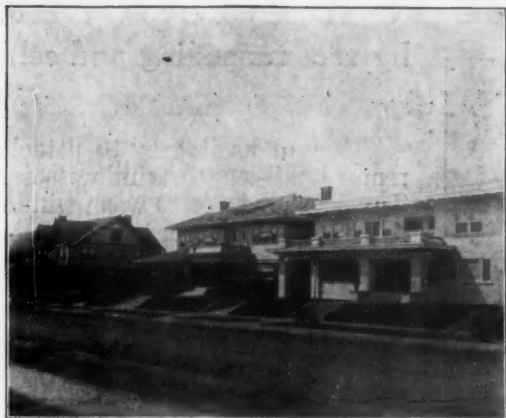
Wheeling Wall Plaster Co.
Wheeling, W. Va.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

MAY

GK2004.44

8.00 11.00 11.00



Medusa Pure White Portland Cement

USED IN THE CONSTRUCTION OF
MANHATTAN PLACE, LOS ANGELES, CALIFORNIA
 FRANK H. TYLER, Architect H. H. BELDEN, Builder

Medusa White Portland is unexcelled for building ornamentation, stucco, concrete building blocks, interior decoration, statuary, cemetery work, parks and grounds, tile, mosaic, setting marble, limestone or brick, etc.

MEDUSA IS THE FIRST TRUE WHITE PORTLAND CEMENT EVER MANUFACTURED

Medusa White Portland Cement can be used for exterior as well as interior work, is perfectly white in color and stainless. Guaranteed to be a high testing Portland, passing standard specifications. Medusa has been used by the U. S. Government in over 50 buildings in the past few years, and also in work on the Panama Canal, and shipments have been made to all parts of the globe.

WRITE FOR ILLUSTRATED AND DESCRIPTIVE BOOKLETS AND SAMPLES

Sandusky Portland Cement Company
SANDUSKY, OHIO



Mr. Dealer!

FIREPROOFING

It will pay you to handle our "Minerva" fire clay hollow tile **FIREPROOFING** — it's the best made, and our shipments will please you.

Get our prices on our 4x5x12 and 5x8x12 Backup Block and also on our various sizes of partition tile.

We have a nice stock on hand for immediate shipments.

The Metropolitan Paving Brick Co.
Canton, Ohio

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

WE sell you Marquette Portland Cement with a just pride in its quality and reputation—that this pride may be transmitted to you is our one aim and desire. Our ambition is to render perfect service—the service that satisfies—and we may need your co-operation. We make our cement as good as cement can be made and we want to make buying and using it a pleasure. Every sack is carefully packed and loaded. Should a shipment reach you in condition other than first-class, or if anything else comes to your attention that we should know, it will be considered a favor if you will notify our Service Department at once.

MARQUETTE CEMENT MFG. CO.

Marquette Building, Chicago, Illinois

Works: La Salle, Illinois

NORTH-WESTERN PORTLAND CEMENT



The Reliable Portland Cement

A Portland Cement for the
NORTHWEST

**North-Western States Portland
Cement Co.**
MASON CITY, IOWA

Boost Your Screen Sales

by recommending and selling



KEES-GOSSETT DETACHABLE SUSPENSION HINGES

They make it easy to attach or remove full-length window screens. Screens swing out to wash windows. Always perfectly secure.

Try a pair—after that you'll recommend them. May we send you a sample free?

F.D. KEES MFG. CO. **BEATRICE, NEB.**

Box 324



It is a fact that the contractors who are using the most "CHICAGO AA" Portland Cement, are the ones who have been using "CHICAGO AA" longest.

VULCANITE PORTLAND CEMENT



The Brand With a Reputation

ESTABLISHED 1893

Capacity (actual) 2,000,000 Bbls. the Year

FREE ON APPLICATION

FOLLOWING BOOKS:

How to Select and Proportion Aggregates.
Cement Sidewalk Paving.
Concrete Highways.
Concrete on Live Stock Farms.
Concrete Fence Posts.
Concrete Tanks.

APPLY TO NEAREST DEALER FOR PRICES

Vulcanite Portland Cement Co.

Broad Street, PHILADELPHIA

Madison Square, NEW YORK

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

PETER MARTIN, Pres. & Gen. Mgr

LIUS M. MARTIN, Asst. Gen. Mgr.

Capital \$1,500,000**THE OHIO AND WESTERN LIME CO.**

Manufacturers and Wholesale Dealers in

Ground Lime, Lump Lime, Fertilizer, Rock Wall Finish, Hydrated Lime, Cement, Plaster, Hair, Etc.**CAPACITY 8000 BARRELS PER DAY**

We have large stone crushers at various places. We make a Magnesia and high Carbonate of Lime. All of these limes are the very best on the market.

THE LARGEST IN THE WORLD

WORKS AT Huntington, Ind.; Fostoria, O.; Gibsonburg, O.; Sugar Ridge, O.; Tiffin, O.; Genoa, O.; Limestone, O.; Lime City, O.; Portage, O.; Marion, O.; Bedford, Ind.

OFFICES AT

Huntington, Ind.

Marion, Ohio.

BE A MONARCH MAN

Where building laws are stringent and inspectors super-critical, Monarch Hydrate has never failed to pass successfully all required tests and save the builders vast sums of money and an immense amount of time. Time is an important item—Why waste it? We invite you to join the procession of joyful, satisfied, money-saving users of MONARCH HYDRATED LIME. We Ship Sudden.

THE NATIONAL LIME & STONE COMPANY
CAREY, O.

**IF IT IS
LIME
WE MAKE IT**

BULK and Barrel --- Mason's Hydrate for brick work and Masonry. --- Try a car load of our "LIME FLOUR" Hydrated Finishing Lime and you will find same to be second to none on the market. --- "CLOVER GROWER" for the farmer—Best made. Can ship promptly. A dealer is wanted in every city.

WRITE FOR PRICES

THE SCIOTO LIME AND STONE CO.
DELAWARE, OHIO.

BANNER HYDRATE LIME

Stands for the Four Important Essentials:

Best for Mason's Mortar

Best for Lubricating Plaster Mixtures

Best for Finest White Finishing Coats

Best for Cool Working Chemical Reactions

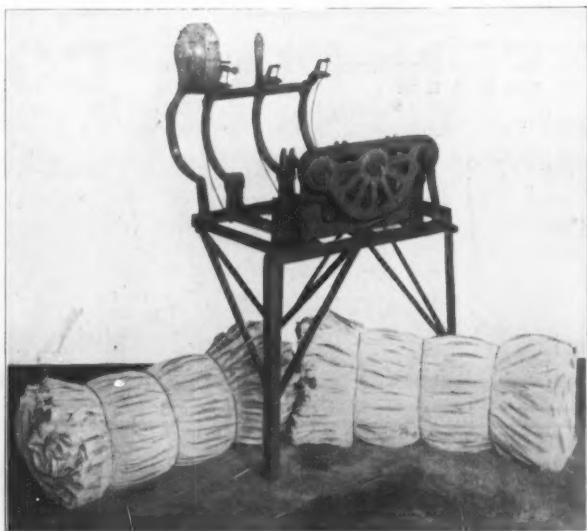
NATIONAL MORTAR AND SUPPLY CO.

A. H. LAUMAN, President

PITTSBURGH, PA.



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Securely Tied With Three Wires

The Cost is Nothing Compared to the Money it Saves You in Labor and Accuracy in Count.

"It Counts'em and Bundles'em."

Price \$30.00

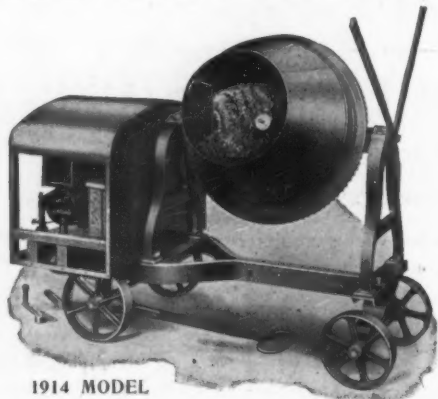
F. O. B. - CLEVELAND

FAEBERHILL MFG. CO. .: CLEVELAND, OHIO

STOP! LOOK! LISTEN!

JUST THE MIXER YOU'VE BEEN WISHING FOR

The BIG-AN-LITTLE



1914 MODEL

Just a Little Bit Better Than The One You Thought Was Best

The small mixer has proved its worth. Contractors see that it pays better to have one or more small portable Mixers, than to mix by hand or to have a great big clumsy Mixer. The question has been to get a Dependable Small Mixer at a Low Price.

The Big-an-Little is the biggest and best small Mixer on Earth and our Low Prices amaze the Mixer world.

Your neighbor has one. They are used everywhere. Ask him. Write us NOW for full particulars.

JAEGER MACHINE CO., 219 W. RICH STREET COLUMBUS, OHIO

A-1 Catalog



Beautiful Houses from Illinois to Massachusetts are Roofed with Reynolds Flexible Asphalt Shingles

A multitude of pretentious residences in a score of states are giving ample proof of the long-lasting surface of Reynolds Flexible Asphalt Shingles.

Every type of modern home can be protected and beautified, at lower cost, with these time-

tried, weather-tested shingles. They withstand the ravages of driving rain, pelting hail, hottest sun and heaviest snow without warping, cracking, splitting, curling or blowing off. Sparks cannot set them on fire. Long Exposure cannot dull their rich color. Adaptable to every style of pitched roof, and make possible unusual architectural effects, such as roll edges, thatch effects and rounded corners.

Reynolds Asphalt Shingles

Guaranteed for 10 years—will wear many years longer—
Write for liberal agency proposition.

Rough-surfaced weather defiers made of crushed slate or granite securely embedded in pure Asphalt. Natural colors of garnet, red or gray-green which never fade and never need painting. We are the original makers of flexible asphalt slate shingles and tested them for ten years before putting them on the market. They are uniform in size—8 ins. by 12½ ins.—and are laid 4 ins. to the weather. Easily and quickly laid.

Let us send you a booklet showing photographs of modern houses roofed with Reynolds Asphalt Shingles. Write for a copy TODAY

H. M. REYNOLDS ASPHALT SHINGLE CO.

Original Manufacturer

Grand Rapids, Mich.

Established 1868

Members of National Builders' Supply Association

Best Bros. Keene's Cement

The Plaster That Stands
Hard Knocks

The permanent plaster for interior walls.

May be retempered as often as necessary.

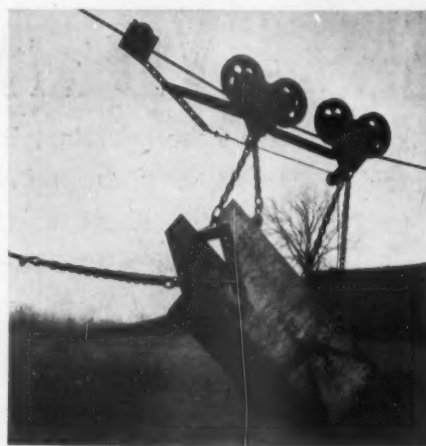
Makes a perfect bond on concrete, brick, tile or lath.



The Best Bros. Keene's Cement Co.

Established 1889

Dept. A, Medicine Lodge, Kansas
NEW YORK CHICAGO



DULL'S REAR DUMPING BUCKET

is especially adapted for gravel plants, stripping purposes, loading cars and handling bulk material by means of cableway excavators.

THE RAYMOND W. DULL COMPANY
CHICAGO

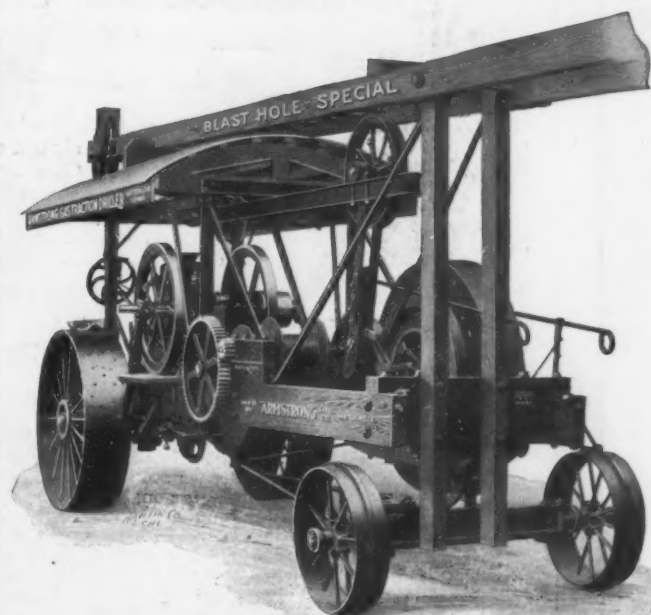
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



A Well Drill Is Not



A Blast-Hole Drill



THIS is an age of specialization—contractors and quarry operators who use Armstrong Special Blast-Hole Drills do so because the "Armstrong Special" is designed exclusively for drilling *blast holes—not wells.*

"Armstrong Special" Blast-Hole Drills are not well drills. We have built well drills since 1867, and we know, as do scores of successful contractors and quarry men, that well drills are not designed for and will not stand the grief of blast-hole drilling. A comparison of machines which have been in operation for a reasonable period of time will convince you. Behind our knowledge is fifty years of drill building experience—behind the experience of users is the knowledge that Armstrong machines are not only more efficient, but the repair, operating and upkeep expense is less due to the fact that

The "Armstrong Special" Blast-Hole Drill Is the Only Cable Blast-Hole Drill Designed Exclusively for Blast-Hole Drilling.

That is why it accomplishes more for the contractor and quarryman than any machine of any other type.

Every working part of the "Armstrong Special" Blast-Hole Drill is designed with direct reference to hard-rock drilling. The Armstrong spudding beam—the most important feature—gives a quick, sharp, springy blow that drills more hole at less cost than any other. The Armstrong raises the tools as fast as they drop and *does not allow the tools to rest at the bottom of the hole as in the case of well drills.*

Judge for Yourself

If we can prove to you that the *Armstrong* will drill blast holes cheaper and better than any other machine, you surely want to know it. All you have to do is to send a postal asking for proof of "Armstrong Special" Blast-Hole Drill superiority.

**Armstrong
Mfg. Co.**

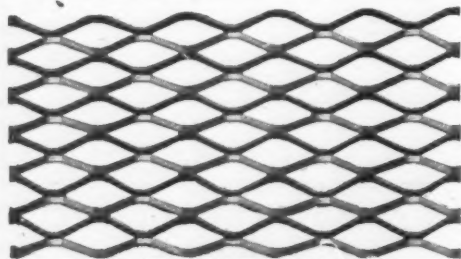
Waterloo, Iowa, U.S.A.

Eastern and Export Office
11 Broadway
New York City

Western Branch
3rd and San Pedro Streets
Los Angeles, Cal.

Canadian Branch: Drinkle Block No. 2, Saskatoon, Sask.

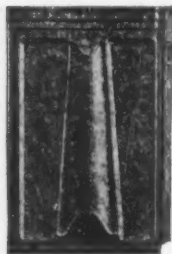
Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



SYKES EXPANDED CUP LATH
SELF-FURRING
HAS NO EQUAL FOR

STUCCO WORK

Furnished with either an anti-rust (oil) coating, painted black or galvanized, packed in bundles containing 20 square yards, size of sheets 18x96 in.; in gauges 27, 26, 25 and 24.



SYKES "IMPERIAL" SHINGLE.

SIZE 10 x 14 and
14 x 20 INCHES.

We also manufacture all styles of roofing and siding, such as corrugated, v crimp, pressed standing seam, roll roofing, brick siding, weather board siding, beaded ceiling, etc.

Sykes Metal Lath

Present opportunities for the dealers to double their sales in this line, as Architects are specifying and building contractors are using SYKES products.

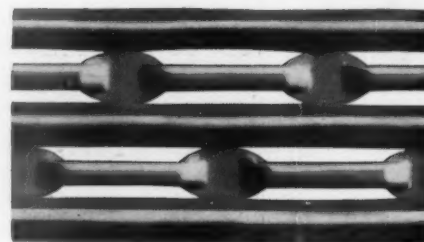
BASIC REASONS

SYKES EXPANDED CUP LATH is self-furring. This greatly reduces the cost of construction on every building where it is used. It is more economical in the amount of plaster required than any other expanded lath. Quickly erected as both sides are alike, cannot be applied wrong.

SYKES TROUGH SHEET LATH is incomparable in its utility for inside plaster work. Can be used to great advantage on any kind of a building. Unusual design, strength and keying principle.

WHY NOT HANDLE OUR PRODUCTS AND INCREASE YOUR PROFITS.

Write us at once for our SPECIAL EXCLUSIVE SALES PROPOSITION, SAMPLES, ETC.

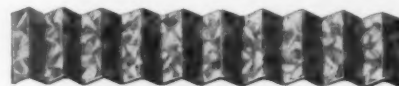


Sykes Trough Sheet Lath

The Strongest and
Most Durable Lath Made

Perfect for Interior Work

Furnished with either an Anti-Rust (oil) coating, painted black or galvanized. Size of sheets, 13½, 15½, 18½, 23½ in. wide by 96 in. long.



SYKES WALL TIE

Standard Tie 7 in. long
Veneer Tie 6 in. long

We also make Metal Corner Bead

THE SYKES METAL LATH & ROOFING CO.,
508 Walnut Street, NILES, OHIO



Your Stock

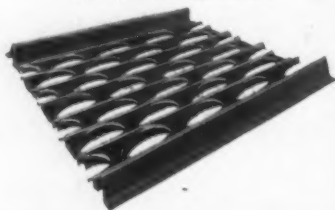
is not complete for up-to-the-minute requirements unless it includes a high grade light re-enforcement for use without forms or stiffening channels.

"BOSTWICK TRUSS-V-RIB" IS WHAT YOU NEED

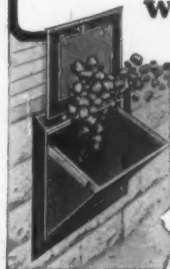
Get our proposition and an outline of the service that goes with it.

**The Bostwick
Steel Lath Co.,**
NILES, O.

DETAIL TRUSS-V-RIB.



Remember the Coal Man when you plan and when you build



Windows were made to admit light and air but not to admit coal. One season of battering and banging will ruin the best window that was ever built into a foundation wall. The

Majestic Coal Chute

absolutely protects the foundation and the woodwork from being injured while the cellar is being filled with the winter fuel. The door opens upward locking against the building protecting the siding. The Hopper swings out and catches all the coal direct from the wagon, barrow or basket. The coal is delivered in the cellar and nowhere else.

When not in use the Majestic Coal Chute closes "burglar-proof". But it does not prevent the light from out of doors from getting in. Made of the best of cast metal with a life-time guarantee the Majestic adds much to the value of the house but increases the cost only a trifle.

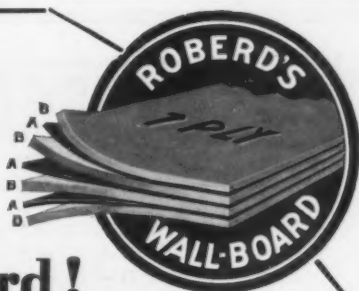
Special proposition to Builders' Supply Dealers on request. Write for it.

THE MAJESTIC FOUNDRY AND FURNACE CO.
426 Erie Street
Huntington, Indiana

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

A-A-A Asphalt Cement
B-B-B Fiber Board

At Last! Seven Ply Wall Board!



At last you can have a perfect wall board, stiffer, harder, tougher, more easily handled, more quickly applied and more satisfactory when on the walls. We have solved the problem. We are now making

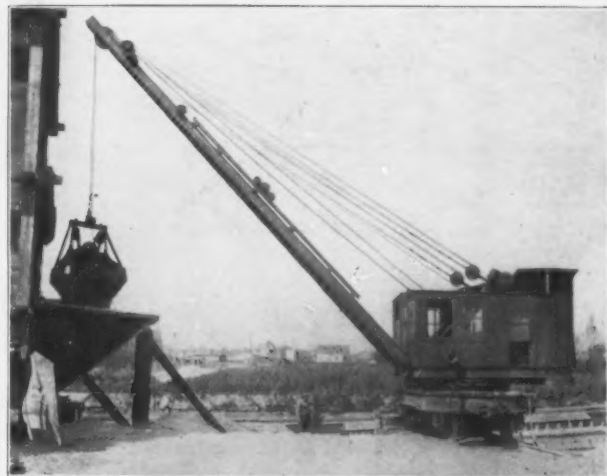
Roberds Ideal Wall Board

with **FOUR** layers of fibre and **THREE** layers of asphalt adhesive compound. Our discoveries, our special machinery, our secret methods of manufacture and our original asphalt cement make possible the production of this **IDEAL WALL BOARD**.

Dealers everywhere are enthusiastic about it. Contractors prefer it to all other brands. Home owners are delighted with the fine finish and the perfect butting of edges which enables them to paper direct to the wall board.

We have doubled the capacity of our plant to take care of the increasing demand for Roberd's Ideal. No advance in prices. Special inducements to the trade. Write today for our dealers' proposition.

The Roberds Manufacturing Co.
107 Railroad Street MARION, IND.



There is a Quicker and Better Way

of handling Sand, Gravel, Crushed Limestone, and kindred materials. It's more economical too.

It's the

"McMyler Interstate Way"

The McMyler Interstate Crane shown above is owned and operated by the Artesian Lime & Stone Company. It is fitted with our Multi Power Bucket and the photo shows it handling crushed limestone. We've solved a good many of our customers' problems. Can't we help you with yours?

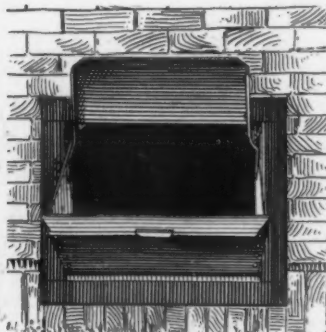
The McMyler Interstate Co., Cleveland, Ohio
London New York Chicago

Every Building That Goes Up In Your Town Needs A

KEWANEE ALL-STEEL COAL CHUTE

and, every chute that is sold means a corking good profit for some one. You can get this profit just as well as the next fellow, by taking up the agency for the Kewanee Chute. The Kewanee Chute has no competition—it is the only all-steel automatic chute on the market, and sells at sight to the building trade.

Furthermore, by means of our co-operative advertising plan we help you sell them at a good profit. There isn't any guess work about our plan—it has been tried and proven right. Many dealers have taken advantage of it and are making money.



Kewanee Chute—Open

Clip the coupon today—send it on its way and without any obligation on your part full information will reach you.

Kewanee Mfg. Co.
KEWANEE, ILL.

KEWANEE MANUFACTURING COMPANY
Kewanee, Illinois

Gentlemen:

Tell me about your "Help the Dealer Plan," of selling Kewanee All-Steel Coal Chutes.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

DOHERTY-ELDRED LIME KILNS



—Original Installation of Six Kilns—
Additional Installation of Six Kilns
Being Erected.

The Improved Equipment Co.

Executive and Sales Offices: 60 Wall St., New York City

COMBUSTION ENGINEERS

Complete Lime Burning Plants
Lime Kilns
Complete Gas Plants

Gas Producers
Special Industrial Furnaces
Refractory Materials



IT WILL PAY YOU TO HANDLE THE MODERN FIRE PROOF
BUILDING MATERIAL

We manufacture all sizes and shapes from the
highest grade shale by the most modern pro-
cess, including backing up, partition, floor
arches and hollow brick; also DRAIN TILE.

AMERICAN CLAY CO.

25 So. Seventh St., TERRE HAUTE, IND.

Concrete's the Thing Lehigh's the Cement



Quality
Quick Delivery
Co-operation

Lehigh Portland Cement Co.

11 Mills

Over 12,000,000 Bbl. Capacity

Main Office:
Allentown, Pa.

Western Office:
Chicago, Ill.

DEXTER Portland Cement THE NEW STANDARD

Sole Agents SAMUEL H. FRENCH & CO. Philadelphia



SHEARER & MAYER Patented DRAGLINE CABLEWAY EXCAVATOR

Large radius of operation, wide range of adaptability for wet and dry excavation.
Operated with a double drum friction hoist. Digs, elevates, conveys and dumps
the material in one continuous operation. Under positive control of one
operator.

Sauerman Bros. 1140 Monadnock Bldg., Chicago
Engineers and Selling Agents

Dealers Anywhere Can Handle It

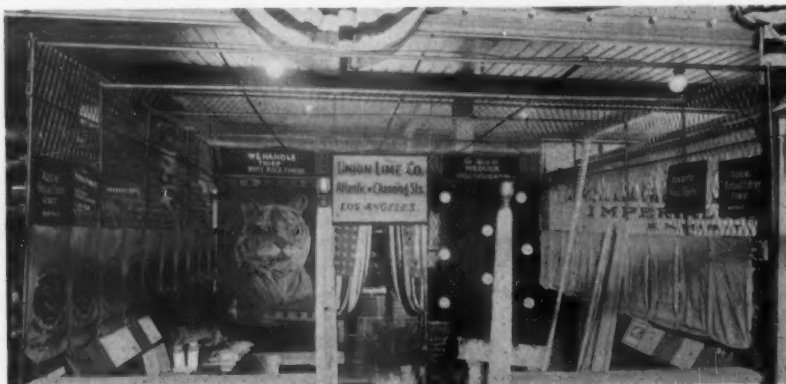
Don't imagine because you are a long ways from
Ohio it would not pay you to handle

Tiger Brand White Rock Finish

Here is a dealer way out in Los Angeles who
pushes Tiger Brand and makes money on it.

He sells it for the finest jobs in Los Angeles.

The Kelley Island Lime & Transport Co., Cleveland, O.



Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Rock Products and BUILDING MATERIALS

INCORPORATING DEALERS BUILDING MATERIAL RECORD

Volume XIV.

CHICAGO, MAY 7, 1914.

Number 1

PUBLISHED SEMI-MONTHLY.

DEVOTED TO

Quarry Products, Cement, Lime, Plaster, Sand and Gravel, Clay Products and Building Specialities—Fireproof Building and Road Construction.

THE FRANCIS PUBLISHING COMPANY.

EDGAR H. DEFEBAGH, Prest.

Seventh Floor, Ellsworth Bldg., 537 So. Dearborn St., Chicago, Ill., U. S. A.

Telephone: Harrison 8086, 8087 and 8088.

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H. F. AKE, Secretary.

DRUSUS H. NICHOLS, Advertising Manager.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.

Every reader is invited to make the office of Rock Products and Building Materials his headquarters while in Chicago.

Editorial and advertising copy should reach this office at least five days preceding publication date.

TERMS OF ANNUAL SUBSCRIPTION.

In the United States and Possessions \$1.00

In all other Countries in the Postal Union \$1.50

Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.

Advertising rates furnished on application.

Published on the 7th and 22nd of each month.

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Copyright, 1914, by E. H. Defebaugh.

Road contracts are not in as great supply as is customary at this time of the year. Appropriations for road work have not been provided up to the average annual mileage.

Hydrated lime has come to be the established form in which that indispensable material is offered in the market. The comparison between hydrated and lump lime that is used on city building jobs has shown a steady increase for the hydrate, while lump lime has almost entirely disappeared. Lump lime at a building operation has come to be considered as the antiquated form of material.

The new banking system is slowly getting into position to be useful. In the meantime big business is suspended to some extent on account of the inevitable readjustment of the financial situation to meet the new conditions. The grinding out of such matters is necessarily slow, but the change will be brought about without any shock and without any serious inconvenience to those deserving of commercial credit.

The Mexican war has got to peter out, because it takes two sides to make a fight. If we take one-half of a fight down to Mexico there can be nothing else but a sputter between the Indians, negroes, Spanish half-breeds and mongrels. Besides, there is no way a dignified nation can kick up a serap with a group of bandits who are unworthy of international recognition. Outside of the scramble for place and promotion amongst those directly connected with the army and the navy, there will be little or nothing doing in our neighboring republic lying immediately to the south of us.

A sand pit or a gravel bin is just about the most uncertain proposition as to the quality of its product as can be found. The reason is the way nature deposited the material in the first place.

The opening of the 1914 building season witnesses the largest number of retailers engaged in the sale of face brick that the industry has ever seen. Dealers have been prone to add this line to regular builders' supplies, considering it a specialty of such large proportion that an extra force was necessary to properly engage in its sale. In some instances extra men have been added to the sales force; in others, the regular force handles the situation. The status of conditions should greatly augment the production and sale of clay products during 1914.

The question of toll in the Panama Canal has no more bearing on the commercial aspect of the United States of America than has the price of sausages on the planet Mars. If there is a ship trust in the coastwise trade, that is no reason why every privately-owned ship by citizens of the United States should be made to pay toll in order to penalize the trust. Now, honestly, wouldn't it be a very good thing for the whole country to declare all the water routes free to whoever owned the ship whenever he wants to load it and move it through the waterways? Would not that be the most efficient way of eliminating a ship trust if there is one? No matter what charges may be established, all the money collected for tolls on the tonnage that goes through the canal if paid in coin will never sink a very big boat.

The growing use of concrete as a structural material has established an intelligent, economical method for fireproof factories and business buildings, as well as homes for the masses. The full recognition or realization of this most important feature of the use of cement has never been exploited as it should be. It is not well understood and accepted by the general public, and the architects have never realized what the possibilities are, probably for the lack of originality in their own conceptions of the modern and future requirements of design. The time is not far off when no man will be so foolish as to consider the construction of a building in which the major part of the material is wood. Even if the fire danger feature of interior wooden construction could be eliminated, the permanency of the concrete building would still make it worth while. As a matter of fact, the best of intelligent concrete construction can be had in almost any of the American markets at no advance whatever over the cost of a wooden-constructed building. This has been proved over and over again and is being proved every day. All that it requires is the exploitation of the industry to give the people of this country the greatest blessing in the shape of security to life and investment that has been known in the history of the human race.

News About People and
Things of Importance

With You and Me

Comments of Interest
to the Trade

The Link-Belt Company has announced the opening of an office in Detroit, Mich., for the handling of its Link-Belt silent chain business and will be represented by L. W. Longan, Room 911, Dime Bank building.

Announcement has been made of the opening of a sales office of the General Roofing & Manufacturing Co., of East St. Louis, Ill., in the Dime Bank building, Detroit, Mich. H. J. Ouellette will be in charge of the new office with a title of district sales manager.

S. L. Avery, president of the United States Gypsum Co., Chicago, favors the repeal of the toll exemption to coastwise shipping through the Panama canal. Expressing himself on this subject, Mr. Avery said: "We favor the repeal on economic and on moral grounds."

A. U. Cote, general manager of the Wallace Sandstone Quarries, Ltd., Winnipeg, Canada, reports that the recent tariff changes have been a great incentive toward greater activity in the building material business of Canada, owing to the protection afforded the dealers.

David C. Haeger, of Aurora, Ill., president and manager of the Haeger Brick and Tile Co., of that city, has been granted a patent on a new style of flat hollow interlocking building blocks. Clay blocks have been among the products put out by the firm whose manufacturing plants are situated at Dundee and Gilberts, for some months past.

M. L. Brown, formerly associated with Mr. Von Phul, who for years was state agent for the Acme Cement Plaster Company, in Texas, has succeeded that gentleman with the Acme company, Mr. Von Phul having resigned to take the management of the Majestic Theater, Dallas, Tex. With the position with the Acme company goes the good will of Mr. Von Phul, who will appreciate any courtesy extended Mr. Brown by his old friends and customers.



FRANK L. HIGGINS, CHICAGO SALES MANAGER,
WHITACRE FIREPROOFING CO., OF
WAYNESBURG, OHIO.

Charles T. Schuler, formerly in the employ of the advertising department of the Lehigh Portland Cement Co., Allentown, Pa., has been transferred to the sales department.

Superintendent W. E. Wuerth, of the Sandusky Portland Cement Co.'s plant at Dixon, Ill., entertained the chemistry class of the North Dixon High School April 23, conducting the students through the large plant and explaining all the processes of manufacturing cement.

The Buffalo Foundry & Machine Co., of Buffalo, N. Y., announces that they have terminated the arrangement whereby H. E. Jacoby has been representing them in New York City and vicinity. They are now handling direct all inquiries covering vacuum apparatus, castings, patterns and machine work.

Sauerman Bros., Chicago, selling agents for the Shearer-Mayer dragline cableway excavator, have recently made a number of installations which bring the total volume of business up to a satisfactory standard, although it was noted that the first quarter of the year set a pace which has hardly been maintained. Prospects are exceedingly bright, however. The concern has for some time been experimenting with a surface remover, which has now been brought to a high standard of efficiency, and will be described in an early issue of this paper.

Walter Fuchs, manager of the advertising department of the Lehigh Portland Cement Co., and who makes his headquarters at Allentown, Pa., has embarked on a new plan for instructing salesmen and others into the details of cement manufacture, which was put into practice a few days ago when moving pictures were employed to illustrate a lecture given by Mr. Fuchs on the making of cement in Plant D at Fogelsville. All of the processes through which the raw materials pass until they combine to form the finished Lehigh Portland cement were shown and thoroughly explained.

G. C. Mars, of St. Louis, advertising manager for the Hydraulic Press Brick Co., addressed the St. Louis Advertising Men's League at a luncheon at the City Club, recently, on "The Sectional Response to Advertising." He described the necessity of consistent general advertising as a means of offsetting the spasms of business depressions which traverse the country. In time of prosperity, when the business curve is on the ascendancy, intensive advertising will gather amazing results, he said, but there must be the continual advertising to provide for the certain time when the business curve will be on the descendancy.

The Claycraft Mining & Brick Co., with general offices at Suite 506, Hartman building, Columbus, Ohio, has announced the purchase of the Ohio Mining & Manufacturing Co. at Shawnee, Ohio. The present large capacity of these plants will be increased at once to take care of the increasing demands for these products. This will be done without interruption to manufacturing or shipping. The enlarged plant at Groveport, Ohio, operated by the Claycraft Brick Co., is now complete in every detail, working daily at full capacity, and its aim is to keep in stock at all times an ample supply of the various grades and shades of their texture brick to give prompt service on all orders.

The Stinson-Reeb Builders' Supply Co., Ltd., has removed its office from the Eastern Townships Bank building to the top floor of the Read building, 45 St. Alexander street, Montreal, Canada.

Harry J. Oyler, of the builders' supply and coal firm of W. I. Oyler & Bro., Gettysburg, Pa., and Miss Emma A. Kurtzer, of Llewellyn, Pa., were united in marriage at Gettysburg on April 15. ROCK PRODUCTS AND BUILDING MATERIALS congratulates.

Charles H. Claiborne, of the Union Mining Company, Baltimore, Md., who sells fire brick and fire clay from one end of the country to the other, was in Chicago last week and looked as happy and thrifty as usual. Charles says that things are picking up right along and the line of his travels looks very encouraging for the season.

J. W. Boardman, general sales manager of the Peninsular Portland Cement Co., of Jackson, Michigan, although still a young man, is one of the oldest men of the industry in the Michigan field. He says that they are busy as bees over at his Jackson office and that they are running the plant full time, with plenty of orders for cement.

Adolph Pfund, secretary of the Wisconsin Retail Lumber Dealers' Association, informs us that the offices of the organization have been moved to 211-213 Merchants and Manufacturers Bank building, Milwaukee, Wis. The association includes in its membership a number of Wisconsin's building material retailers.

Fredrick E. Paulson, traffic manager of the Lehigh Portland Cement Company, honored our sanctum with a call last week. Fred is an old war horse of the cement industry and has got his hands full with the enormous tonnage of the Lehigh company; but hard work always makes him smile, for he is never so happy as when he has twice as much to do as three men ought to tackle.



J. W. BOARDMAN, GENERAL SALES MANAGER,
PENINSULAR PORTLAND CEMENT CO.,
OF JACKSON, MICH.

To facilitate the prompt shipment of cement, the Lehigh Portland Cement Co. has established a selling and distributing office at New Castle, Pa. Western Pennsylvania, the upper river counties of West Virginia and the major portion of Ohio will comprise the district to be served from this office and will be known as the New Castle district. This office will be in charge of Mr. Paul A. Jandernal as manager.

That building material retailers of Reading, Pa., do not sit in their offices and wait for orders is evidenced by the injuries two of them have received recently while going about their duties. Charles A. Miller, of C. D. Miller & Son, was knocked down by a bicycle and received a fractured arm. Later David C. Geiger, of the Reading Lime Co., was confined to his home with a cracked ankle.

F. W. Renwick, of the Joliet Sand & Gravel Co., Chicago, advises that, although the sand and gravel industry is somewhat hampered at present by conditions prevailing in the Chicago territory, yet his concern has found the volume of business quite satisfactory so far. Mr. Renwick believes that an early termination of the brickmakers' strike would greatly assist building operations generally.

Chas. Kritzer, of the Kritzer Co., Chicago, is inclined to be optimistic regarding the hydrated lime situation for the summer months. Mr. Kritzer reports that the new hydrating plant of the Mitchell Lime Co., Mitchell, Ind., which installed Kritzer hydrating machinery, will begin operations next week. The Kritzer Co., which is located on the nineteenth floor at 72 W. Adams street, will soon move into its new quarters at Room 1231, same address.

The Davis Mantel and Tile Co., of Dayton, Ohio, entertained builders, real estate dealers and architects of the Miami valley on April 22. The visitors spent the morning at the company's new show rooms and warehouse, where the show rooms are arranged similar to rooms in a home, displaying every design of mantels by daylight. Luncheon was served at the Builders' Exchange and later the visitors were entertained at a theater party. The following day open house was held for Dayton builders and real estate men.

F. A. Mitchell, vice-president and general manager of the Ceresit Waterproofing Co., Chicago, has just returned from a two weeks' trip through the Southeast, on which he was accompanied by a number of representatives of the Chicago Association of Commerce. The delegates received a cordial reception in all the cities they visited. Mr. Mitchell had the pleasure of meeting a large number of building material dealers and is greatly impressed with the progressive spirit which seems to pervade the very atmosphere of the section visited.

The Chicago Belting Co., Chicago, Ill., recently opened a branch store in San Francisco under supervision of W. M. Shear, assisted by W. A. Daggett and F. H. Kruger, of the above three representing the active interests of the Coast Selling Corporation. Also associated with this company are O. C. Hazlett, president of the Truckee Lumber Co., and L. S. Jones, of the Alaska Commercial Co. These two gentlemen lend great influence to the company, although not active. The opening of this new branch fills the gap that previously existed between this company's branches at Portland on the north and Los Angeles, nearly 1,200 miles south. Those acquainted with business conditions in the West believe that this branch could not have been opened at a more opportune time.

D. E. Rodgers, vice president and general manager of the Fort Towson White Lime Co., Fort Tow-

The Builder's Poet

I

The Regular Ruminates

I joined the regulars 'way back in eighteen
ninety-two,
I've done most every kind of work a soldier
has to do;
On midnight post
I've seen the ghost
Of battle in the sky,
I've seen the gory girdle where the host of
wounded lie.

II

For I served the flag in Cuba, and I climbed
old San Juan,
Where we broke the barbed wire barricades
and licked the Spanish Don;
And where the dead
Were strewn ahead
We fought past where they lay—
And then I caught the fever, and the Devil
was to pay.

III

For years I fought the Moros, not the
pleasantest of boys,
Who seemed to think denatured heads the
cutest kind of toys;
I nearly left
My friends bereft
A knife jab caught me here,
But the surgeon sewed me up again and
put me back in gear.

IV

You'd think I'd quit the ranks and find some
easy work to do,
But the fightin' fever's got me, and I'm
soldier through and through,
And with the Blues
At Vera Cruz
I'm itching for the scrap,
And swearin' at our watchful waiting grape-
juice handicap.

V

For I've got the fightin' fever, and the boys
have got it, too,
The rainy season's coming, and we're devil-
ishly blue;
The plague's death sweat
Will get us yet,
But first we want to try
And show these bloody greasers how white
soldiers fight and die.

—Frank Adams Mitchell.

son, Okla., advises us of the recent organization of that concern with a capital stock of \$10,000. The company has an abundance of material located directly on the railroad which analyzes as follows: Silica, 1.3%; iron and aluminum oxides, 1%; lime, 97.8% and magnesia, 6%. It is expected that the plant will be in running order within about 30 days.

Ben D. Bonner, who is at the head of the Bonner Marble & Lime Co., of St. Joe, Ark., was in Pine Bluff, Ark., recently, conferred with Secretary E. B. Bloom, of the Chamber of Commerce in regard to establishing a warehouse and yards in this city. It is the intention of the company to locate a warehouse and yards for the handling of all its products from that point. The products handled by this company are crushed rock, lime, etc., and the establishment of this industry would be a great asset to that vicinity.

The Kent Mill Co., 10 Rapelyea street, Brooklyn, N. Y., announces the opening of an office in Detroit, Mich., early in May. J. F. Benton, energetic and capable sales representative, will have charge of the new office. They have recently installed three improved Maxecon mills for the Peerless Portland Cement Co., at Union City, Mich., who are more than satisfied with the increased capacity which this installation has made possible. Still further installations have been for the Huron Portland Cement Co., at Alpena, Mich., and the Doric Portland Cement Co., of Owen Sound, Ont. Mr. and Mrs. Benton were visitors at ROCK PRODUCTS AND BUILDING MATERIALS' office the latter part of April.

Holds Railroad Experience Valuable.

Frank L. Higgins, Chicago manager of sales for the Whitacre Fireproofing Co., is peculiarly fitted for the position he occupies with the Waynesburg, Ohio, concern, having secured an excellent knowledge of freight rates and methods of shipment used by the various railroads during the many years he was connected with them. While contracting freight agent for the Grand Trunk road, he had an opportunity to learn both sides of the freight shipping problem. He knew the policies of his own and other public carriers, and the men with whom he came in contact soon taught him the requirements of the shipper. This knowledge Mr. Higgins holds very valuable when it comes to disposing of building materials of the type manufactured by the Whitacre Fireproofing Co.

Mr. Higgins has represented the Whitacre Co. in Chicago since August, 1913. His district includes the state of Illinois and the territory adjacent thereto.

Previous to associating himself with the Whitacre Fireproofing Co., Mr. Higgins was connected for four years with the Chicago Fire Brick Co., of Chicago, where he was in full charge of the country sales department. He is a Chicago product, having first opened his eyes in the "Windy City" on December 9, 1874.

E. S. Jester, salesman in the mortar color department of the Warren B. Ferris Brick Co., Columbus, O., was in Louisville recently calling on the trade. Mr. Jester had been in West Virginia and other Eastern territory, and reported things in that section as looking very good for spring business.

National Builders' Supply Association

What is the National Builders' Supply Association?

The application blank of the National Builders' Supply Association provides that the signer shall be heartily in accord with the principles and aims of the association, and no doubt the question has often presented itself in the minds of a good many readers of this publication as to just what are the purposes for which the association has been formed.

The "Declaration of Purpose" as set forth by the N. B. S. A. is as follows:

"To promote closer acquaintance and to foster a freer interchange of thought and opinions among its members and to remedy such misunderstandings among the members thereof as may be injurious to their business interests; to disseminate among the dealers in and manufacturers of building materials a better knowledge of all matters appertaining to said trade by such means as may be deemed practical or advisable with a view to fostering and promoting greater efficiency and economy among its members, and also to co-operate with other associations which may be striving to accomplish similar purposes."

A careful reading of the above will immediately disclose the fact that embodied in this declaration are the true principles of co-operation, and no one can deny that there is at the present time a very decided need for any assistance which can be rendered looking towards the injection of this spirit into the rank and file of building supply dealers.

It would seem, therefore, that the effort which is being made by the N. B. S. A. to bring about a condition which will result in the practical application of the principles it advocates, should be encouraged from all sides, and every assistance which it is possible to render be given. The dealer in our opinion needs the association, and the association (which grows in effectiveness with each additional member) needs the dealer. There are unlimited ways and means by which an association can be made useful to its members, all of which will uncover themselves in a degree equal to the interest the members display. It is to be hoped, therefore, that you will take advantage of the opportunity offered and send in immediately your application for membership, remembering that "Concentration is the secret of strength in politics, in war, in trade," in short, in all management of human affairs.

N. B. S. A. Notes.

Bulletin No. 3, which is being sent to all members of the National Builders' Supply Association, contains the following list of new members:

Allwood Lime Co., Chicago, Ill.
American Rolling Mill Co., Middleton, O.
Buehrle, German B., Youngstown, O.

Buffalo Builders' Supply Co., Buffalo, N. Y.
Grand Rapids Building Supply Co., Grand Rapids, Wis.

Heppes Co., The, Chicago, Ill.
Humbert, Wm. S., Inc., Buffalo, N. Y.
Iola Portland Cement Co., Kansas City, Mo.
Kelly Plaster Co., Sandusky, O.
Kewanee Manufacturing Co., Kewanee, Ill.
Laughlin Lumber Co., W. A., Ft. Arthur, Tex.
Majestic Furnace & Foundry Co., Huntington, Ind.
Marquette Cement Mfg. Co., Chicago, Ill.
Murray-Brooks-Gill Co., Lake Charles, La.
Parson Lumber Co., Rockford, Ill.
Seng, W. S., San Antonio, Tex.
Wemlinger Co., Inc., New York City.

The National Builders' Supply Association has also prepared, and is sending to members, certificates of membership. This is something new in the line of activity which it is intended shall be shown by the N. B. S. A. this coming year. Members are requested to display these certificates in a prominent place in their headquarters, the suggestion being offered that by so doing they will prompt many inquiries as to just what the association is. These questions and their answers will result in the securing of a great many applications for membership. We are pleased to note this effort on the part of the officers of the association to help further the work, and believe that the members will appreciate it.

President Cormack left for the East last Sunday on a business trip, and no doubt he will find time to preach the gospel of association work at every opportunity offered. In fact, we believe that he will make the opportunity if it should fail to show itself.

In the meantime Secretary Desmond is busy looking after the many duties of his office in association headquarters in the Chamber of Commerce building. He reports that the situation is taking on a brighter aspect every day.

Directors to Meet.

The members of the board of directors of the N. B. S. A. will meet in Chicago in the near future. June 20 has been suggested as an ideal time for this meeting and decision on the date awaits the approval of a majority of the board.

In conjunction with the board meeting this year the active members will be invited to attend the sessions and take part in the business discussions.

One of the features of the meeting will be a social affair, consisting of a trip across Lake Michigan, a baseball game, or some similar entertaining and enjoyable feat.

Eastern Pennsylvania Dealers Active

Expect to Complete Organization Details at Meeting on May 7—Will Then Work to Increase Membership.

Having been organized less than a month, the Building Material Dealers' Association of Eastern Pennsylvania will hold its second meeting at Reading, Pa., on May 7, for the purpose of completing the details of organization and permanently fixing a policy of action.

At the meeting held on April 9, a number of progressive dealers were present; but a still better attendance is looked for at this meeting. The officers elected at the last meeting have been exceptionally busy during the past three weeks boosting the association and the scheduled meeting. President Charles A. Miller and Secretary J. Allison Gring have had the assistance of J. "Linn" Durnell, who has had years of association experience. Together they have had printed the necessary stationery and have sent letters to every retailer in the district urging them to co-operate with the present members by attending the meeting and joining the association.

A good program has been prepared by the Executive Committee, who are assuring dealers in the district that the meeting will be one of accomplishments.

Not only will the retailers be present, but manufacturers will have their representatives at the meeting. An announcement has been sent them, inviting the presence of their officers and salesmen.

As soon as the association has been perfected an organized effort will be made to bring into its fold every recognized building material dealer in Eastern Pennsylvania.

Recent Incorporations.

Cassery Assets Corporation, Brooklyn, N. Y.; to deal in building materials; capital, \$30,000. Incorporators: D. M. Stapleton, G. W. and J. E. Cassery.

The Mayfield Builders' Supply Co., Cleveland, Ohio; capital, \$10,000. Incorporators: V. Gatto, N. Gatto, Luigi Aveni, Antonio Aveni.

South New Lots Corporation, Jamestown, N. Y.; to deal in building materials, etc.; capital, \$200,000. Incorporators: C. G. Lindsay, W. M. Lindsay, J. L. Stone.

North Hudson Supply Co., West Hoboken, N. J.; capital, \$50,000; to deal in building materials. Incorporators: William Walser, Ernest W. Hildebrand, J. Philip Doppel.

Officers.

President—Edw. K. Cormack, Chicago.
Treasurer—John J. Voelkel, New Orleans.
Secretary—L. F. Desmond, Chicago.

Directors.

J. H. Allen, Lincoln, Neb.
Charles Warner, Wilmington, Del.
C. N. Ray, Detroit, Mich.
W. F. Jahneke, New Orleans, La.
C. M. Kelly, Providence, R. I.
W. W. Coney, Cincinnati, O.
L. W. Macatee, Houston, Texas.
D. J. Kennedy, Pittsburgh, Pa.

NATIONAL BUILDERS' SUPPLY ASSOCIATION.

Chamber of Commerce Bldg.

Chicago, Ill.

Application for Membership.

The undersigned being heartily in accord with the principles and aims of the National Builders' Supply Association does hereby apply for membership:

Firm name.....

Signed by.....

P. O. Address.....

Date.....

THE RETAILER

Arguments End on Freight Rate Increase

Railway Companies and Shippers Finish Presentation of Evidence and Await Decision of Interstate Commerce Commission—Believed that Proposed Spotting Charge Will Soon Be Considered

The arguments in the eastern freight rate advance case were completed before the Interstate Commerce Commission on May 1, and now it remains for the commission to decide whether or not the railroads operating east of the Mississippi River and north of the Ohio and Potomac Rivers shall receive a 5 per cent increase in freight rates. The argument was closed by George Stuart Patterson of the Pennsylvania Railroad, followed with a brief statement by President Willard of the Baltimore & Ohio Railroad, who disclaimed any intention on the part of the carriers in their publicity campaign to irregularly influence the commission or any one else. In adjourning the sitting, Chairman Harlan of the Interstate Commerce Commission announced with what was regarded with much significance: "This concludes this phase of the case."

It has been pointed out heretofore that the fundamental question of the inquiry was whether the present revenues of the railroads were adequate to their needs. Since a negative answer to that question would end the case, the chairman's announcement was accepted by those present as indicating there will be other phases of the case in the future, and that the commission proposed to adopt Mr. Brandeis' view that the present revenues of the roads are not adequate. The next phase of the proceeding would be the second question propounded by the commission: "How are the additional revenues to be obtained?" In his closing argument, Mr. Brandeis, as special counsel for the commission, contended that added revenues could be obtained by levying a charge for the "spotting" of cars; for services now rendered free by the roads, such as lighterage, wharfage and warehousing, and by the elimination of allowances now made to industrial railways and, at present, absorbed in the rates. "How can the revenues apparently needed be obtained?" asked Mr. Brandeis in conclusion. "All interests must have opportunity to be heard. Opportunities for obtaining additional revenues are such as to show that not merely \$50,000,000 a year, but a sum more nearly approaching \$100,000,000 a year is easily within the grasp of the carriers if methods of conserving revenues which are being suggested are adopted."

With the vast amount of data before the commission, which will have to be digested in considering what ought to be done to relieve the financial conditions confronting the carriers, a decision can hardly be reached before the first of June. That the commission will agree that the railroads are in need of more revenue seems to be the general opinion among traffic experts, but it is freely predicted that the commission will not allow a flat 5 per cent increase. One prominent reason given for this is that the tariffs covering the 5 per cent increase involve considerably more than a 5 per cent advance, in many cases the range being from 3 per cent to as much as 25 per cent. Furthermore, it is said that the railroad men having failed to suggest any other method of rehabilitating the finances of their respective lines than by the requested general rate advance, have made grievous mistake, which Mr. Brandeis has capitalized greatly in opposing their application. The carriers, realizing the weakness in some portions of their case, have already begun to meet the situation by filing with the commission what are known as "Spotting Car

Tariffs," which have been filed by practically all eastern railroads during the week just ended. According to Henry M. Camp, proprietor of the Lime Service Bureau, Washington, D. C., these tariffs provide for a minimum spotting charge of \$2.00 per car and each tariff contains the following descriptive statements as to what the "spotting service" consists:

"Spotting service is the service beyond a reasonably convenient point of interchange between road-haul of connecting carrier and industrial plant track and includes:

"First—One placement of a loaded car which the road-haul connecting carrier has transported.

"Second—The taking out of a loaded car from a particular location in the plant for transportation by the road or connecting carrier.

"Third—The handling of empty cars in the reverse direction."

Philadelphia Dealers Fighting Car Spotting Charge.

When the country at large received word recently that the Interstate Commerce Commission had been appealed to by the Eastern railroads for a 5 per cent increase in freight rates, it was little suspected that the commission would be asked to consider a proposition to place a tax upon builders' supply dealers and others who were fortunate enough to own their railroad sidings. But such is the case; and the dealers in the territory affected if the measure becomes law, are compelled to fight an attempt to place a burden upon them because of the fact that they have grown large enough to secure for their own private use a railroad siding.

It is proposed that a charge shall be made for the placing or spotting of cars upon the private siding of shippers or receivers of freight in carload lots, these charges to vary in accordance with the amount of switching required to be done upon the siding. It is estimated, however, that the average charge will be \$2.00 per car. This charge will be made at both ends of the shipment. The shipper will be called upon to pay the fee when the car is placed for loading; and then the retailer will be charged for placing the car for unloading upon receipt of the car. This will add \$4.00 to the cost of the contents of the car, in addition to the charge for haulage.

Upon the face of it, it would seem that the public carriers should be heartily in favor of it; but on second thought, it may mean the necessary investment of millions of dollars upon the parts of the railroad companies, for the proposed law does favor one class of retailers. Naturally, all desire to be in that particular class. It favors the man who receives all of his material on a public siding; his goods will be received with no extra charge for the spotting of the car. The freight charge will be all that he is called upon to pay.

At the present time, the railroads are deriving an enormous amount of benefit from the private sidings. It has saved them vast sums that would have been expended for public sidings, had not the private sidings been installed by their owners. It would certainly be a great injustice to allow the railroads to obtain revenue from a source from which they are

Should the commission decide that the railroads are entitled to more revenue they will surely give consideration to the suggestion of Mr. Brandeis, and will attempt to ascertain if a charge for free services can be adjusted on a practical basis so as not to disturb materially the present competitive conditions. This will be an exceedingly hard matter to accomplish.

It is, of course, understood by manufacturers and retailers that no hearings on the proposed spotting charge and charges for other free services will be had until after the commission formally decides whether or not the eastern roads are entitled to more revenue, which will probably be about June 1. If the roads win, the next question for the commission to decide is: "How much more revenue do the railroads need?" After the amount is determined, the last question for the commission to give its answer to is: "How shall additional revenue be obtained?" During the consideration of the last question will probably be the time when hearings on the existing free services to carriers will be conducted. It is believed that the commission will not be ready for any hearings on the spotting charge (if any are to be had) before June 15.

now deriving benefit because of the extra trackage. A spotting charge would surely tend to curtail private siding and would mean, in due time, immense outlays by the railroads for increased freight yard facilities.

The Eastern Pennsylvania Builders' Supply Association, of Philadelphia, which is a credit association of the Philadelphia dealers, has made an investigation of the dangers that will confront them if the proposed car spotting charge now before the commission is enacted into law. They have found that each builders' supply dealer connected with the association and who owns his own railroad sidings will have his cost of doing business increased thousands of dollars annually. The conservative figures place the number of cars received by the smallest of them at 500 per year. At an average charge of \$2.00 per car, the cost on this one item alone will be \$1,000.00 per year.

As a result of the investigation carried on and with this uncalled for charge staring them in the face, members of the association have pledged themselves to raise a sum sufficient to employ a competent attorney to properly prepare and place their arguments before the commission. It will require at least \$3,000.00 to do this, but the Philadelphia dealers are determined to fight the charge as long as there remains the opportunity.

Two of the Philadelphia men who have taken it upon themselves to raise the necessary money to defray the expenses are Harry Moore, of the De-frane Sand Co., and J. L. Durnell, of the Charles Warner Co. During the latter part of March and the first half of April, these men devoted at least half their time convincing others of the seriousness of the proposition and inducing them to share with the builders' supply dealers interested the burden of the expense. They report that the dealers have come to the rescue in many shape and that they will be able to make a united demonstration before the commission. They have already engaged their attorney and declare that he is one of the best informed railroad attorneys in the country. They hope to be able to convince the commission of the folly of the proposition, and thereby save annually hundreds of thousands of dollars for the industry.

CASH FOR IDEAS

on

"COSTS OF THE RETAIL DEALER"

ROCK PRODUCTS AND BUILDING MATERIALS is going to make it worth while for anyone who has special thoughts on the subject of "Costs of the Retailer," to communicate them to its readers. Twenty-five dollars will be paid for the best article on the most improved methods for ascertaining costs, and any further suggestions concerning the retailers' problems. Fifteen dollars will be paid for the next best article, and ten dollars will be paid for the third best article. For every other article submitted there will be a prize of lesser value awarded.

This is to be not only a contest; this is to be a nucleus for a regular department devoted to the betterment of the cost systems of the retail dealers; and everyone, whether interested in the prizes or not, should submit articles and be ready with suggestions or criticisms when some of the various articles are published in future issues of ROCK PRODUCTS AND BUILDING MATERIALS.

There are a large number of building material dealers who understand quite thoroughly their costs of doing business. But there are also a large number who do not understand or at least do not estimate correctly their cost problems. The

overhead cost of handling respectively such articles as cement, lime and plaster; the value of one department as compared with another; whether in certain communities it is worth while to carry certain lines; the correct way to figure the selling price; these, and many other problems enter into the figuring of costs.

ROCK PRODUCTS AND BUILDING MATERIALS has always been the standard bearer of the building material dealer. His troubles have been its troubles. This "cost contest" is now proposed in order to bring out the best ideas in the industry on the subject.

The Terms of the Contest will be as follows:

All articles must be submitted before June first; and the results, with the opening of the cost department, will be published in the issue of June seventh.

The contestants must be either subscribers personally or permanently employed by a subscriber to ROCK PRODUCTS AND BUILDING MATERIALS.

This is not to be a literary contest. Ideas are what are wanted. Put them into your own language. If necessary, the editorial department will re-write your article. The awards will be made on the ideas offered, not on the manner in which the article is written.

ROCK PRODUCTS AND BUILDING MATERIALS reserves the right to use any or all of the suggestions or articles in its editorial columns for the enlightenment of the business and for the encouragement of better cost systems and more intelligent operations in the retail business.

The judges will be selected from the building material trade, together with a member of the staff of ROCK PRODUCTS AND BUILDING MATERIALS.

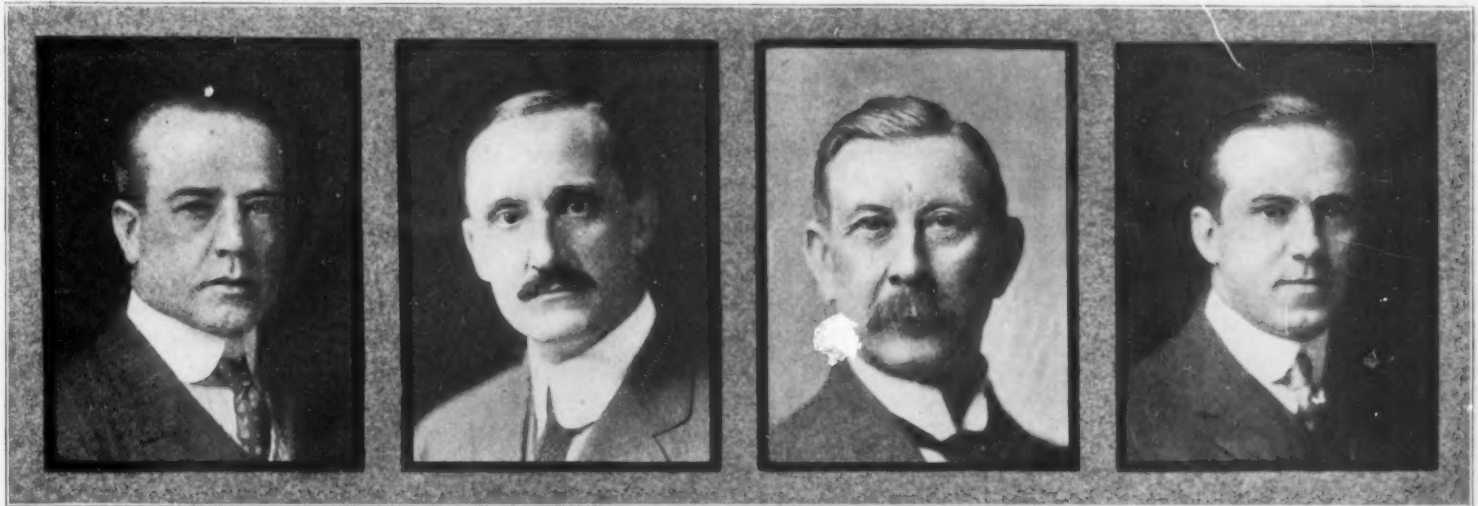
It is hoped that replies will be received from all classes of the trade, including the large and small dealer, the manufacturer, the wholesaler, the salesman, etc. Every-one's ideas are valuable, and the very thought which YOU may deem insignificant may be the one that will win the greatest recognition. Stop now and send us YOUR IDEAS.

Address all communications relative to this contest care Editor, Cost Department,
ROCK PRODUCTS AND BUILDING MATERIALS,

537 South Dearborn Street,

Chicago, Ill.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



PROMINENT PACIFIC COAST RETAILERS, MEMBERS OF THE RECENTLY CONSOLIDATED FIRM OF PACIFIC BUILDING MATERIALS CO., SAN FRANCISCO. FROM LEFT TO RIGHT: A. S. LILLEY, L. D. WADDELL,

Prominent Pacific Coast Firms Consolidate

Pacific Building Material Co. Succeeds San Francisco Concerns—Service to Architects and Engineers to Be Big Factor in New Enterprise.

A consolidation of two prominent builders' supply houses of San Francisco has resulted in the formation of the Pacific Building Material Co. The new firm succeeds the Waterhouse & Price and Lilley & Thurston companies, two of the oldest and most reliable manufacturers' agents and jobbing houses in California. It is incorporated under the state laws of California and its incorporation papers call for a capital of \$500,000.

The new concern does not assume any of the obligations of the old companies, other than to take over their various agencies and accompanying good will. The Pacific Building Materials Co. starts with a clean slate and a financial backing second to no similar corporation on the Pacific coast. In the matter of credit it refers to the Crocker National Bank and the Wells Fargo Nevada Bank, both of San Francisco.

The time is past when a building material business means merely having a warehouse and doling out to contractors the various materials as they are asked for. It is now largely a question of "service" to the architectural and engineering profession; furnishing them with details, information and data of the various types of materials to be specified in each particular case. For this reason the caliber and personnel of the men composing the Pacific Building Materials Co., besides the question of financial backing, will be vital factors in the advancement of the business.

The large saving which will be made in consolidating warehouses, clerical forces and overhead expense of various kinds will enable materials to be sold at the lowest possible prices and yet leave that margin which it is imperative to have to cover the "service" mentioned above.

The personnel of the new company includes L. D. Waddell, manufacturer, formerly of Chicago; Alexander S. Lilley, president of the Lilley & Thurston Co.; Edwin M. Eddy, prominent in the lumber industry on the Pacific coast, and F. C. Price, junior member of the firm of Waterhouse & Price Co. C. J. Waterhouse, president of the Waterhouse & Price Co., though retiring from active business, will be a stockholder in the new concern.

The engineer for the Pacific Building Materials Co. will be O. P. Shelley, Asso. Mem. Soc. C. E., who has in the past been identified with the Lilley & Thurston Co.

The offices of the Pacific Building Material Co. are at 523 Market street, San Francisco, where

members of the industry and architects, engineers and contractors are always welcome.

Scranton Retailers Wear Summer Smiles.

After Month of Snowbound Condition Dealers Rejoice When Able to Deliver Materials.

During the months of February and March the city of Scranton, Pa., as well as other cities in the East, suffered from probably the most severe snow storms in its history. In some places the snow was drifted from eight to 10 feet in depth. At street intersections, with the regular force of employees, numbering 250 men, the crossings were opened where traffic was most important, piling the snow on the corners and later removing such accumulation by means of wagons and dumping it into the nearest sewer manhole. The work of removing snow in this manner was exceptionally slow, and for a period of almost a month building material dealers were forced to cease delivering building materials.

The reason snow accumulates in large quantities in Scranton is that the city lies in a valley, through which flows the Susquehanna river. On either side of the city loom the mountains, the Allegheny range on the west and the Blue mountains on the east. From the center of the business district of the city the land slopes upward to the immense hills. The hilly condition of this city naturally makes hard work for teams and drivers engaged in the delivery of materials. Under the most favorable circumstances the delivery of supplies in Scranton is hard work, as practically all deliveries must be made up hill.

There is no attempt made to deliver materials when the city is in a snowbound condition, and neither Luther Keller, E. L. Merriman, of the Paragon Plaster & Supply Co., nor Mr. Collins, manager of the Bates Oil & Mfg. Co., attempts to supply materials during such climatic conditions. Through their years of experience with Scranton conditions they have come to realize the seriousness of the situation during the affected months and endeavor as far as possible to deliver their supplies either before or after these periods.

With the first signs of spring this year the mild weather brought cheer to these retailers, and the wagon loads of materials which left their yards evidenced the fact that winter had gone.

Light Weight Sack Recommended.

In the March 22nd issue of ROCK PRODUCTS AND BUILDING MATERIALS the advantage of packing Portland cement in containers of smaller size than those used now was quite extensively discussed. We have received a number of comments on the article, among them the opinion of L. H. McCammon Bros., of Cincinnati, Ohio, who think that cement should be shipped only in single service paper containers. They think this change from 95-pound cloth sacks to a 76 or 80-pound sack would result in more cement being shipped in bags which may be destroyed after they have once served their purpose, thereby eliminating a great many disputes which now arise regarding the return and condition of the bags.

One of the interesting features of the McCammon letter is the recommendation that the "barrel" weight of cement be changed. At present four sacks, each containing 95 pounds of cement, constitute a barrel. This places the standard barrel weight at 380 pounds. The McCammon suggestion is that the size of the sack be reduced so that it will contain but 80 pounds. This will result in lightening the burdens of those who handle cement. The employees of manufacturers, dealers and contractors will alike benefit from the lesser load of the individual sack. Workmen will be able to work faster and will handle equally as much material after this change has been effected, as well as before. In addition to this advantage it will place the standard barrel weight in round numbers, and ton weight can be more easily computed. Instead of four sacks to the barrel it is suggested that five sacks constitute a barrel. This places the barrel weight at 400 pounds; 25 sacks to the ton.

Commenting on the article in the previous issue, McCammon Bros. say:

The writer notes with pleasure and favorable consideration your article on page 23 of the March 22nd issue of your publication, entitled "Would Lessen Weight of Bag of Cement." It "hits the nail on the head" exactly so far as our opinion is concerned, and we think would settle for all time the disputes and hard feelings that are caused by cement being packed and shipped in cloth sacks, the contention as you know being caused by the disputes over what is considered proper credit for sacks returned.

Every dealer knows that cement handled in paper sacks shows more profit to him than when handled in cloth sacks, and the contractor would also understand it so, were he to be furnished cement in paper sacks that would stand handling, and the only reason to our mind that cement in paper sacks does not stand handling now is because there is too much weight in the sack. Put cement up in 80-pound paper sacks, and have five sacks constitute a barrel, and the cement business will be more or less of a pleasure to be engaged in, instead of as it is now being forced to handle cloth bags, and have contention over their proper credits when returned.

News of the Trade

BUILDING CONSTRUCTION FAIRLY ACTIVE.

Permits were taken out in eighty-three principal cities in March, according to official reports to Construction News, for the erection of 20,936 buildings involving a total estimated cost of \$65,870,993, as against 19,293 buildings and \$67,122,506 in cost for the corresponding month a year ago, an increase of 1,643 buildings and a decrease of \$1,251,513 or 2 per cent. This is a very satisfactory condition of affairs, and taking into consideration that there were gains in forty-eight cities and losses in only thirty-three, would incline one to the belief that building operations for the year will parallel last year's construction, if not exceed it both in numbers of structures and cost. The figures in detail are as follows:

Cities	No. of Bldgs.	Estimated Cost	No. of Bldgs.	Estimated Cost	% Gain	% Loss
Chicago	1,170	\$ 8,111,550	937	\$ 7,690,600		
New York (Hors Man. and Bronx)	359	6,168,376	425	11,702,266	..	47
Philadelphia	1,508	5,179,030	1,772	6,806,500	..	36
Boston and vicinity	349	4,532,000	320	3,802,000	14	..
Cleveland, Ohio	1,409	4,070,253	830	2,296,480	77	..
San Francisco	501	3,956,475	571	1,599,967	147	..
St. Paul, Minn.	353	2,345,709	208	1,063,286	120	..
Detroit	860	2,274,475	538	2,291,825	..	1
Los Angeles	1,116	2,179,756	1,671	3,034,213	..	28
Minneapolis	343	2,093,915	347	735,885	177	..
Kansas City, Mo.	422	1,516,380	341	911,260	66	..
St. Louis	910	1,450,034	721	1,432,939
Grand Rapids, Mich.	517	1,239,353	119	164,750	571	..
Pittsburgh	304	908,618	338	716,817	83	..
Albany	198	947,900	212	400,255	136	..
Seattle	881	923,480	845	768,850	80	..
Portland, Ore.	708	889,961	616	886,760
Dallas	224	807,213	215	1,051,640	..	23
Indianapolis	569	782,384	454	743,205	8	..
Rochester	274	775,030	290	731,941	6	..
Milwaukee	369	694,924	281	649,394	7	..
Bridgeport	102	683,461	101	250,653	173	..
Buffalo	309	660,400	311	1,694,743	..	61
Columbus	293	655,993	232	307,338	113	..
Oakland	388	623,907	407	917,028	..	31
Springfield, Mass.	128	569,918	137	612,085	..	8
Atlanta, Ga.	316	561,444	216	405,240	29	..
Toledo	323	556,928	173	282,255	97	..
Richmond, Va.	170	539,346	222	615,236	..	18
Peoria	72	380,785	24	108,000	370	..
Hartford	104	481,843	130	419,305	6	..
New Bedford	121	463,510	140	274,730	106	..
New Haven	106	455,380	109	280,482	47	..
Memphis	279	376,300	273	73,121	..	23
Worcester	119	351,928	142	469,813	..	23
Dayton	31	338,100	40	41,775	702	..
Newark	145	331,240	274	1,173,888	..	72
Omaha	147	361,165	108	363,575	..	23
Salt Lake City	113	307,150	47	174,000	146	..
Berkeley	112	263,550	104	334,850	..	21
Duluth	105	263,541	81	1,707,205	..	81
San Diego	279	262,660	273	407,860	..	46
Birmingham, Ala.	332	236,597	311	940,725	..	75
Sacramento	164	236,174	183	569,177	..	59
Akron	299	228,160	148	235,060	33	..
New Orleans	127	220,000	141	553,011	..	58
Nashville	79	229,080	41	180,524	23	..
Pasadena	149	221,491	147	175,828	25	..
Savannah	67	194,400	41	183,300	19	..
San Antonio	290	194,540	273	193,330	8	..
Erie	215	192,784	123	132,800	62	..
Reading Pa.	100	171,050	60	121,025	41	..
Cedar Rapids, Iowa	35	170,850	24	151,000	10	..
Youngstown	70	164,340	81	165,890	16	..
Schenectady	34	155,713	67	152,769	9	..
Tacoma	170	137,968	186	129,423	11	..
Davenport	34	138,509	21	50,950	160	..
Tampa	138	114,865	110	97,266	18	..
Elizabeth	38	112,579	46	445,205	..	74
Chattanooga	188	111,410	190	66,960	68	..
Evansville	120	107,615	81	102,463	5	..
Stockton	59	103,481	46	95,850	26	..
Altoona	66	103,397	88	121,023	..	12
Pateron, N. J.	54	100,347	69	137,287	..	26
Spokane	108	86,335	121	159,920	..	46
East St. Louis	67	86,380	50	88,800	..	30
San Jose	45	79,313	45	68,132	27	..
Springfield, Ill.	21	79,140	30	40,705	94	..
Lawrence	21	72,640	24	91,550	..	21
Pueblo	24	67,055	19	33,605	98	..
Pasaic, N. J.	18	64,122	30	104,725	..	28
Portland, Me.	11	57,435	44	103,000	..	46
Hoboken	11	49,360	80	19,445	51	..
Seranton	33	48,908	56	66,308	..	42
Rayonue	30	46,543	35	55,820	..	25
St. Joseph, Mo.	70	44,736	89	78,370	..	42
Wilkes-Barre	66	44,303	51	167,311	..	73
Holyoke	22	37,363	29	237,730	..	64
Topeka	44	37,320	56	128,191	..	70
Saginaw	54	33,095	37	49,460	..	29
Pueblo	24	32,790	34	58,825	..	31
Troy	37	16,998	42	63,135	..	41
Colorado Springs	27	14,178	27	80,548	..	31
Totals	20,936	\$65,870,993	19,293	\$67,122,506	..	2

Chicago leads in volume of building, permits having been taken out in March for 1,170 buildings involving a total estimated cost of \$8,111,550, as against 937 buildings involving \$7,690,600 for the same month a year ago, a gain of 233 buildings and increase of 5 per cent in cost. New York and Philadelphia do not make such a satisfactory showing, the former having a loss of 47 per cent and Philadelphia 16. There is a very satisfactory increase scattered generally throughout the entire country, while the cities in which there was a falling off are so remote from each other that it

has practically no general significance. There were increases in Boston of 16 per cent, Cleveland 77, San Francisco 147, St. Paul 120, Minneapolis 177, Kansas City 66, Grand Rapids, Mich., 571, Pittsburgh 33, Albany 136, Seattle 20, Indianapolis 3, Rochester 6, Milwaukee 7, Bridgeport 173, Columbus 113, Atlanta 29, Toledo 97, Peoria 370, Hartford 6, New Bedford 106, New Haven 47, Dayton 702, Omaha 21, Salt Lake City 146, Akron 23, Nashville 23, Pasadena 25, Savannah 19, San Antonio 5, Erie 62, Reading 41, Cedar Rapids 10, Youngstown 10, Schenectady 2, Tacoma 11, Davenport 160, Tampa 18, Chattanooga 68, Evansville 5, Stockton 26, East St. Louis 47, San Jose 25, Springfield, Ill., 94, South Bend, 98, Hoboken 151, Pueblo 31. It will be seen by a perusal of the foregoing that the activity is pretty evenly distributed throughout the entire country.

The decreases are scattered over a wide range, including Los Angeles 28, Dallas 23, Buffalo 61, Oakland 31, Springfield, Mass., 8, Richmond 12, Memphis 35, Worcester 25, Newark 72, Berkeley 21, Du-ruth 81, San Diego 46, Birmingham 75, Sacramento 58, New Orleans 58, Elizabeth 74, Altoona 12, Paterson, N. J., 26, Spokane 46, Portland, Me., 46, Seranton 42, St. Joseph, Mo., 43, Wilkes-Barre 73, Holyoke 84, Topeka 70, Saginaw 29, Troy 81, Colorado Springs 31.

Chicago Builders Still Idle.

Brickmakers' Strike Continues to Retard Progress in the Building Industry—Arbitration May Relieve Inconvenience.

As a result of the strike of brickmakers building operations in Chicago are at a standstill. Such structures as were ready for interior work at the commencement of the strike have been finished and plasterers, as well as painters and interior woodwork mechanics, are now idle. There are practically no materials being sold.

The delay in the completion of several buildings in the loop district has placed many physicians, dentists, lawyers and business men in peculiar positions. A large number of them are at present without offices. Occupants of offices in some of the older buildings refused to renew leases and had rented offices in buildings being erected. The strike of the brickmakers started nearly three months ago and caused operations to be suspended on many of the buildings which were to be ready for tenants May 1.

The inconvenience may be ended soon by a board of arbitration, which is likely to be appointed today.

It is estimated that the strike is holding back \$14,000,000 worth of work.

Officials of the brickmakers' union have met and received the report of Frank Kastens, its president. In his report Mr. Kastens asked that the delegates from the brickmakers' local unions advise members to vote in favor of arbitration if the dispute could not be settled by conferences.

The brick manufacturers are meeting daily and it is believed they will shortly take action in regard to arbitration.

"There is a probability that the board of arbitration will not be necessary," says Mr. Kastens. "The manufacturers are willing to meet representatives of the unions, and there is no bitterness. It is possible that a compromise may be effected which will result in peace with much less delay than would accompany arbitration."

"I do not believe the strike will last long," said William Schlake, president of the Illinois Brick Company.

The McLaughlin Building Material Co., who for years have been located at 9 South La Salle street, were forced to move May 1, because the building at that address is to be razed to make way for a 14-story skyscraper. The McLaughlin Co. are now located at 29 South La Salle street, where they have a suite of rooms on the third floor.

Louisville Market Moving Steadily.

Open Weather Brings Demand for Varied Line of Materials.

Louisville, Ky., May 4.—Builders' supplies in Louisville and the local market are moving steadily in response to the generally open and settled weather which, while it has not brought such a large volume of orders as might be expected, has created a wide and varied demand because of the number of small undertakings. There are any number of smaller operations under way in Louisville and vicinity and now and then these are supplemented by the orders for large brick residences. Such large buildings as are in prospect for the summer are slow in getting under way. The contract for the construction of the first of these, the Stock Yards Exchange, has just been let.

Isaac Tyler, president of the Tyler Building Supply Co., which succeeded Owen Tyler in the local field, has announced the acquisition of the agencies for a number of manufacturers, which include the Hay Walker Brick Co., of Pittsburgh, for which company they will display a line of fancy brick; the products of the Hocking Valley Clay Products Co., of Columbus, O., which will be represented, for instance, by a rough rug brick; the McArthur Brick Co., of McArthur, O., which will supply its agent with mission brick; the Federal Clay Products Co., of Mineral City, O., whose light colored salt glazed brick will be handled by the Tyler company. Mr. Tyler said that he was preparing to open a display room for the exhibition of the lines of supplies he carries and said that the second week in May would see it ready for inspection.

The Tyler company recently obtained the contract for the terra cotta to be used on the Stock Yards Exchange building.

One of the builders' supply concerns of Louisville which is finding plenty to do is the Sam F. Troxell Co., which recently took over the Charles F. Fitch Co., concrete contractors, and acquired the services of Charles F. Fitch himself as general manager. The company under Mr. Fitch's management is now combining operations.

Business in general is picking up in the view of the R. B. Tyler Co., as the season advances and building operations are getting under way.

The builders' supply department of the Union Cement & Lime Co. is making a special play in the way of bids for face brick. This company recently acquired the local agency of the Monarch Metal Weather Strip Co.

The Elkhorn Brick & Supply Co., recently incorporated in Kentucky, will establish its headquarters at Van Lear Junction, Ky., where it will do a retail supply business as well as a manufacturing business. It has an authorized capital stock of \$20,000, and is headed by F. L. McCue, of Jenkins, Ky.

Louisville supply men are interested in the formation of the Louisville Material Dealers' Credit Association, which will operate as its name indicates. The incorporators include William Dehler, John M. Settle, A. E. Livingston and F. A. Sampson. R. B. Tyler is president, J. M. Settle vice-president and L. M. Parsons secretary.

Builders' Specialties

Coal Chutes and the Building Material Dealer

Retailer's Acquaintance With Architects and Contractors Makes Him Logical Distributor of These and Other Builders' Specialties.

With the number of building material supply dealers that are handling building specialties continually on the increase, the subject of coal chutes is one that should be closely looked into by every aggressive building supply man. The former general feeling that coal chutes belonged to the hardware dealer is being overcome, for the builders' supply dealers are finding that they are the logical ones to handle coal chutes and that they can handle them profitably and to very good advantage.

In selling coal chutes, the architect is the first to be considered, for he is the man that specifies the chutes. He must be solicited from time to time, which is a strong point in favor of the building material dealer, who is an old friend of the architect—he is calling on the architects every day and keeps in constant touch with them in selling his regular lines.

The actual sale of coal chutes is made to the contractor (and here also the building material dealer is the logical man) for he is the first one to come in contact with the contractor before a building is started. The contractor goes to the building material dealer for his foundation material; and it is at this time that coal chutes are easily sold. The matter is fresh on the contractor's mind and, furthermore, it is a distinct advantage to him to be able to concentrate his order and have complete delivery made at one time.

The advantages of handling coal chutes are very apparent, the first being additional profit. The profits that are made on coal chutes have been estimated as running from 30 to 60 per cent on the investment, which alone is a big inducement to building material dealers who have to be content with a much lower percentage of profit on their staple lines. Furthermore, it is not necessary to

architects and contractors, working up coal chute business for the coming season. This work also serves to keep the staple lines before the building trade.

The various manufacturers of coal chutes have for some time realized that the building material dealers are the best fitted to handle coal chutes, and appreciating that coal chutes are practically a new commodity on the market they are helping the dealers in every way possible to establish a trade.

All of the coal chute manufacturers are doing a vast amount of advertising to the building trade with a view of creating a further demand for their product, so every building material dealer that takes



THE OLD WAY—BROKEN WINDOW AND DIRTY WALL.

up this line can reap the benefits of this advertising. At least one concern is doing local advertising for each of their agents to boost their sale of coal chutes.

Coal chutes are a specialty that can be handled in practically every community, for they are used wherever there are buildings, with the possible exception of the oil and gas burning sections of the country.

Specialty Lists Coming In.

Retailers Handling Specialties Sending Lists to Rock Products and Building Material Office.

A number of the many readers of ROCK PRODUCTS AND BUILDING MATERIALS have entered the Specialty Department Contest. Their letters indicate that the lists are sent primarily to ascertain just how many different materials are handled and sold by builders' supply dealers. As there is but one prize to be given, and that for the longest list, a few of the contributors say they do not care to take part in the contest, but are sending in their lists to aid the Specialties Editor in securing as complete a list of specialties as it is possible to get.

One contestant states that he is handling lumber in addition to builders' supplies and wants to know if he should list the various kinds of lumber his firm handles. He is a progressive bookkeeper employed by one of our regular subscribers. Our answer reads: "No, do not list the various kinds of lumber. While



INTERIOR VIEW OF COAL CHUTE WHEN CLOSED AND LOCKED.

a large number of building material dealers handle lumber, for the sake of this contest, we cannot permit lumber to receive more than one point. List it only once and as 'Lumber.' "

For the information of readers who failed to see the announcement in the last issue of ROCK PRODUCTS AND BUILDING MATERIALS, we re-print the announcement and terms of contest:

For the information of our readers we desire a list of builders' specialties that are now being sold by the retail builders' supply houses of the United States. For the most complete list of such specialties we are going to present a copy of Radford's "Estimator and Contractor," a book which should be in the possession of every building material dealer and which will be found to be of great value.

We have at the present time in our possession a number of lists of builders' supplies and specialties handled by various dealers, but none of these have been submitted in this contest. All contestants must send in their list of materials between the time this issue is received and June 15. It is obvious that we desire these lists for publication purposes and reserve the right to use any and all of them in the columns of ROCK PRODUCTS AND BUILDING MATERIALS. Believing that only good will result from the publishing of retailers' names in connection with these lists we shall use the names of the firms submitting them, unless we are asked to refrain from doing so. In submitting your lists, address them to ROCK PRODUCTS AND BUILDING MATERIALS, care of the Specialties Editor.

The Elasko Co., Buffalo, N. Y., has been incorporated to do a general cement business; \$10,000; Jessie McC. Barker, No. 15 Dorchester road, Buffalo; Wal-



THE NEW WAY—BURGLAR-PROOF DOOR AND CLEAN WALL.

make a large investment for stock in order to sell coal chutes.

The handling of coal chutes, or any other building specialty, does more than produce profits for the building material dealer. It gives a new and broader field to work with. During the winter months when the building trade is practically at a standstill salesmen can be kept busy calling on



OPEN COAL CHUTE SERVES AS COAL RECEIVER AND WALL PROTECTOR.

How to Handle the Farmer

(By Frederick D. Curtiss.)

Philosopher Gives Serious Study to Cost Problem

Farmer Jones Finds Building Material Retailer and His Bookkeeper Gathering Statistics Relative to Overhead and Cost-of-Doing Business Expenses — Had Made Profits, but Wondered Why.

"What's the latest thing to be reformed in the building material business?" asked Farmer Jones as he found the Philosopher busy with the bookkeeper, who was showing sheet after sheet of figures and explaining them to the boss.

"The head of the establishment," was the reply, as the Philosopher swung around to greet the visitor. "I find that I need reforming about as much as anyone or anything I know of," he added. "Oh,



"IF YE ARE PRUDENT, THAT WILL LAST YE."

you needn't look alarmed. It isn't a case of morals. I have tumbled to an important fact—I don't know the actual cost of the things I sell.

"At a meeting of our board of education one night the subject was the adoption of some new courses in the high school so as to make it a complete preparatory school for the state university. That stirred up one of the members who began a tirade against universities and higher education, in which he expressed thankfulness that he had never been corrupted by contact with a college. Finally the superintendent of schools spoke up.

"Do I understand you to say that you are thankful for your ignorance?" he asked.

"You can put it that way, if you like," was the reply.

"Then," said the superintendent, in his politest manner, 'you have much to be thankful for.'

"The only difference in this case is that I am not thankful. It has dawned on me that when it came to exact information about my business I have been pretty slipshod. For instance, I knew what the manufacturer charged for lime, the freight rate and approximately the cost of handling at this end. When it came to making a selling price I figured all of these in and then added what I thought was the correct percentage of the overhead expense. If part of the stock became damaged in storage I charged it to profit and loss, but it never occurred to me to average this loss and figure it in as cost. By going back over the books I have

found that in some years lime was a fairly profitable thing to handle, and other years it was not. Now I intend to eliminate the gambling feature in this and in other lines. The old way was too much like a fellow who had a small farm on the edge of town. He was inclined to go on a protracted spree about every so often, and one day he was seen figuring on the door of his pig sty. Finally he shoveled ten bushels of corn on the ear into the pen where he had six hogs, and turning away he said:

"There, blast ye. If ye are prudent that will last ye."

"The same theory was used by the old lady who was going away for a week's visit and who at the last minute thought of her cat. She hastened out for a pail of milk and then, putting seven bowls on the back porch, filled them all, each containing a cat's rations for a day.

"Of course you will say that this business has been prosperous and therefore I should be content, instead of working the bookkeeper to death getting up statistics and averages on every conceivable angle of the business when he might be studying the base ball scores. I will admit that this establishment has paid dividends each year, but sometimes when I get on an investigation like this I am inclined to believe that the prosperity that has come this way has been due a great deal more to good luck than to good management. It might not work out that way always and then the sheriff would gather me in. All the time I would be trying to figure out what had happened, and why. I have seen it happen to others and their experiences were like those of Sandy MacPherson, who started to build a small stable of brick. He had watched bricklayers carefully until he picked up the trade sufficiently for his purpose and so he went ahead bravely enough, working from the inside as real bricklayers do. To save steps he had taken the precaution to put all of his material in the center of the floor space.

"The walls were rising fast when dinner time came and with it Sandy's son Jock and the father's dinner pail. With honest pride in his eye Sandy looked at Jock over the wall and asked:

"Hoo d'ye think I'm getting on, Jock?"

"Famous, feyther," replied the lad, "but hoo dae ye get out? Ye've forgot the door."

"Sandy looked around, bewildered and saw his son was right.

"Jock, man," he said, 'ye've got a gran' heid on ye. Ye'll be an architect yet, as sure as yer feyther's a builder.'

"The tendency is with all of us to keep on in the way we have been going, thinking that it will be the right way always. But it seems to me that conditions in every line keep changing constantly and it is only by checking up all of the time that we find out what is going on. We find new leaks that might be fatal if not stopped. It makes me think of a trip I took on a dinky branch line last winter. The locomotive was more like a tea kettle than anything else and it wheezed along for an

hour or so, and finally stopped at a cluster of houses. Time went on and the train did not start again, so, when a brakeman came through, we asked the reason.

"We're taking on water," he explained.

"Well, you ought to get another teaspoon," said one of the passengers. "The one you are using seems to leak something dreadful."

"Already I have found several teaspoons around the place that were leaking 'something dreadful' and they have been discarded. Incidentally the investigating developed that two or three articles in the stock have been carried solely as an act of philanthropy. You smile at this idea, I see, and I assure you it wasn't intentional. Hereafter they will bring in a profit or overboard they go. Nobody travels on a pass on this train, and the ruling passion is thrift. In fact, I intend to be as thrifty as the Scot who stopped the minister after church was out.

"That was a powerful deescourse on thrift ye preached this morn," he said.

"I'm glad ye were able to profit," replied the parson.

"Profit! Why, mon, I would have pit my saxpence onto the plate wi'out a thought, if it had not been for your sermon," said Sandy, feelingly. "It saved me fourpence there and then."

"Still I am not going out after the kale quite as strong as a Chicago man I head of. He called in a private detective one day and said to him:



"IT SAVED ME THREE PENCE THERE AND THEN."

"Some fellow has been representing himself as one of our collectors. He has been taking in more money than any two of the men we have. I want him collared as quickly as possible."

"All right, I'll have him in jail in less than a week," replied the detective.

"Great Scott, man, I don't want him put in jail," exclaimed the merchant, "I want to hire him!"

"In this passion for efficiency and system now-a-days some people lose their heads and spend so

much time over statistics that they don't have any left in which to get business. One has to guard against that, of course, for it is as far away from the correct idea as the old chap who kept a little store here years ago, before we got to be a metropolis. My wife went into his place one day and asked for some ribbon. He potted around for awhile and then said:

"I've mislaid the stock of ribbons, but if you will come back in an hour or so I'll see if I can find them."

"The wife was amused enough to go back that same day and he reported that he had found them."

"What color did you want?" he inquired.

"Blue," she replied.

"Oh, blue," he exclaimed. "We haven't any blue. It sells so fast we don't even try to keep it."

"Along toward the last of his career as a merchant he got rheumatism and that didn't help things any. One day I went in to make a small purchase, and found him sitting by the stove. I told him what I wanted and he said:

"I wish you would wait for that until you go home at noon. I don't want to get up just to do one thing."

"The place where he used to have his store is now occupied by a real estate man who gets such a tight hold on the coatsleeve of a prospective customer that the only way to escape is to buy a lot or slip out of the coat and run."

"What will you do if your competitors refuse to follow your prices and so get the trade?" asked Jones.

"If I find that we have priced something at an actual loss I would rather a competitor made the sale than I," replied the Philosopher. "It can't harm me if he does business at a loss, and he can't keep it up very long. By knowing exactly where I stand on costs in every line I will be able to swing a big deal by cutting my profit a little on some one article, if it is necessary, although I am not strong for price cutting at any time. It is bad for the dealer and bad for the buyer in the long run, although it is hard to convince the buyer of that. Still, some have come to learn the value of a stable market and others will in time. Your question about my competitors makes me think of two Scotchmen who were in an asylum and plotted to escape. Says Sandy to Tam:

"Bend down an' I'll get on your back and climb to the top o' the wall and haul ye up."

"Sandy gained the top of the wall and slid down on the other side, saying:

"Tam, I think you'll be better to stay another fortnight for ye're no near sane yet."

"The bookkeeper and I have been over the figures for nearly everything on this bill of fare and as I study out the tables he has prepared I wonder that things went as well as they did. In fact I feel like a fellow who went into a barber shop for a shave and had the misfortune to sit in the chair of a barber who had been out the night before and whose hand was correspondingly unsteady. The razor cut the patron's cheek four times and after each accident the barber would say:

"Dear me, how careless."

"After he escaped from the chair the patron walked over to the water cooler, filled a glass, took a mouthful and with compressed lips proceeded to shake his head from side to side.

"What's the matter?" asked the barber. "Tooth-ache?"

"No," was the reply. "I only wanted to see if my mouth would still hold water without leaking."

"I have known men who ran things so loosely that any time they wanted to know some detail of the business they had to call in an employee. I believe that the boss should know more than all hands put together; and the nearer he comes to this mark the more likely he is to show a profit, not only one year, but all of them. The way some people run their own affairs makes me think of a remark

I heard the other day. I was in the hotel office when in walked a stranger, who seemed to be nearly seven feet high. The clerk, who is something of a character, assigned him a room, and then said:

"Do you mind if I ask you a question?"



"BLUE SELLS SO FAST WE DON'T EVEN TRY TO KEEP IT."

"Certainly not," was the reply.

"I want to know," said the clerk, if you can tell when your feet get cold."

"A whole lot of men are so far away from the details of their business that they can't tell whether a certain article is an asset or a liability. Sometimes the only way they ever find out is when they ask the receiver."

"I don't mean that a man should tie himself to the details of his business to the exclusion of the big things that come into the particular domain of the wide-awake manager, but he can train his office force to do the research work for him. The idea some folks have that the best way to do a thing is the hardest way reminds me of an officious constable I met last summer. A prosperous citizen of a neighboring town was building a new home and I had been over to see about some of the material he wanted for a special purpose. We talked so long I missed my train, and he brought me home in his new touring car. As we passed through a cross-roads town about dusk the constable stepped out and raised a commanding hand.

"See here, young feller," he proclaimed, "you'll have to jump out and light up your lamps."

"All right," answered the owner of the car, "just as you say about it."

"With this he reached over and turned a button



"DEAR ME, HOW CARELESS."

and instantly the powerful light beamed forth. The constable was stumped for a minute, for he had never seen a gasoline car with electric lights. But he recovered.

"Say, young feller," he growled, "don't try to get gay with me. When I tell you to light your lamps I mean for you to get out and light them."

"I guess your idea is all right," said Jones, "when it comes to a business like yours."

"Yes," replied the Philosopher, "and I think it applies equally well to farm work. Try it and see if all of your crops and all of your animals pay their own way and a profit beside."

Cost Contest Creating Enthusiasm

Retailers Learning That "Knowledge Is Power" and Accurate Cost-Finding Systems Save Money.

The question of "Costs of the Retail Dealer" is creating a live interest in the building material trade at this time and ROCK PRODUCTS AND BUILDING MATERIALS is assembling a great deal of good material for the issue of June 7.

The subject is one that is creating widespread discussion, as the thoughtful men of today appreciate the value of efficient and systematic methods and their application to each particular business.

The articles which are being prepared for the "Cost Contest" as outlined on another page of ROCK PRODUCTS AND BUILDING MATERIALS have not brought forth as great a variety of the trade as it is hoped will submit suggestions; and all salesmen, dealers, manufacturers and other factors in the trade are urged to study this "Cost Contest" page and then send in their suggestions before the June 7th issue.

A man with expert knowledge of his cost system knows the cost of his goods and the profit he is making, and he knows why his goods cost him a certain fixed sum. He it is that talks quality and merely mentions price as incidental. A man with this expert knowledge of his goods has confidence in himself as well as the goods he sells; this inspires his customers with a feeling of trust, and no one better knows what a wonderful asset this is in making a sale than the experienced salesman. There is nothing that will give the salesman more confidence in his right to a legitimate profit on his goods than the knowledge of all the cost items that go together to make his selling price, and there is no one quite so weak as the man that has neither confidence in himself or the goods he is selling.

Proposed Lien Law to Be Published

What is said to contain the most ideal provisions for the protection of the building material dealer, is the proposed Mechanics' Lien Law of the state of New Jersey, which is at present before the state legislature. It was prepared by a committee appointed by ex-Governor (and now president) Wilson. Mr. Genung, president of the New Jersey Mason Material Dealers' Association, was a member of this commission, and James M. Reilly, secretary of the association, was secretary of the commission. A complete copy of the draft has been secured by ROCK PRODUCTS AND BUILDING MATERIALS. Because of law will be printed in the June 7th issue of ROCK PRODUCTS AND BUILDING MATERIALS, in order that retailers in other states may be able to intelligently take up this question before their state legislature.

Practically every state has its lien law; but many of them are of little benefit to the building material dealer—the man who furnishes the necessary supplies for construction work.

Every building material dealer in the country should avail himself of the opportunity to secure a draft of the New Jersey lien law. Dealers should send in their requests early for extra copies. Watch for the June 7th issue of ROCK PRODUCTS AND BUILDING MATERIALS.

Roofing Materials

Modern Material Popular.

Practicability and Attractiveness of Improved Roofing Materials Appeal to Dealers and Builders.

Regardless of the place a man may be located, whether in darkest Africa or civilized America, there is one quality which all men possess. It is characteristic of the laziest inhabitant of the tropics as well as the active Northerners who make their homes as close to the North Pole as it is possible to come. This peculiarity which exists among the ignorant as well as the educated, and which has been known to exist since the days of Adam, is "self-protection."

Men of every class have always known enough to protect themselves from their human enemies as well as to guard against all attacks of wild beasts. The changing conditions of the weather have also taught man that protection is needed against this source.

The means of protecting themselves from the inclemency of the weather have varied greatly among the different nations of the earth. This has been due largely to environment, inasmuch as the protection needed in the frigid regions of the North are vastly different from those required in countries bordering on the equator.

The main feature of protection from inclement weather conditions consists in the erection of roofs. With the exception of cold and heat, the changes of the weather come from above, and it is but natural that means of protection should be erected to prevent the rays of the sun, rain, hail, etc., from reaching the habitations of the various human families scattered upon the earth.

Until recently local conditions decided entirely the selection of materials used for overhead protection. Before the days of transportation and interchange of materials, human beings were forced to use such materials as were found adjacent to their dwelling places.

The histories of nations deal very little with the roofing materials used throughout the ages, but in describing the living conditions of these people, occasional reference is made to the manner in which their homes were constructed and quite frequently the materials used in building roofs are mentioned. There have been roofs made of blades of grass which have been joined together with clay and there have been roofs of straw, the materials in the latter being laid down with branches and twigs of trees. We are also told that in some places massive slabs of stone have been used as roofing materials. In other places brick of huge proportions as well as other forms of masonry construction have been used.

Today we have many and diversified kinds of roofing materials, among them being tile, wood shingles and prepared roofing materials. The latter may be had in either small units, such as shingles, or in long strips, packed in rolls.

By far the most convenient is the asphalt roofing materials used today. It is made in a great variety of forms and consists chiefly of a felt material, which is thoroughly saturated with a tar or asphalt fluid and then finished with small gravel, which is imbedded in the tar or asphalt and intended for use on the upper side of the roofs to be constructed.

Building material dealers have taken very kindly to the new roofing materials. Realizing that the antiquated methods used by our forefathers cannot be successfully used today and also realizing the ease with which the improved materials can be

used, as well as considering their attractiveness and lasting qualities, building material dealers in all parts of the country and in some foreign lands, are today keeping in stock and selling large quantities of this new fire-resisting roofing material.

Roofing Plants Attacked by Fire.

Within Period of Twelve Days Three Establishments Partially Ruined.

Between the period of April 17 and April 29 fire attacked three roofing materials manufacturing plants, with losses ranging from \$1,000 to \$50,000. Two of these plants are located in Chicago; the third at St. Paul, Minn.

Lehon Fire April 17.

The first of these fires took place at the plant of the Lehon Co., Chicago, on April 17. While it was burning "Tom" Lehon sent for an architect and while the firemen were busy fighting the flames Lehon and the architect were designing a new plant. A Chicago newspaper tells the story as follows:

The Hon. Emp. Nero fiddled while Rome burned, according to the records of the Roman fire attorney's office.

When Sodom burned Lot gathered up his family and "blew" the town.

Helen had hysteria when Troy was burned.

April 17th fire attacked the plant of the Lehon Co., manufacturers of prepared roofing materials at Forty-ninth and Leavitt streets, Chicago, and Thomas Lehon sent for an architect to design a new plant.

The paper and roofing materials plant created a spectacular fire visible for miles around. Hundreds gathered to watch the battle of the firemen. Several calls for engines were made. Frequent explosions of hot tar spread the flames. The loss was estimated at \$15,000 by Mr. Lehon and at \$30,000 by the fire department.

Heppes Co. Plant Damaged April 26.

The fire which broke out in the monster plant of the Heppes Co., Kilbourne avenue and Fillmore street, Chicago, on the night of April 26th, caused little if any serious mishap to their business, according to an official statement recently received.

O. A. Heppes, secretary and treasurer of the company, which is universally known as manufacturers of Flex-A-Tile asphalt shingles, asphalt paint, asphalt roofing in any finish and Utility wall board, said that while the total loss approximates \$25,000 the damage was insufficient to affect the operation of business to any appreciable extent.

"Deliveries on Utility wall board will probably be delayed for about 10 days from the date of the fire," said Mr. Heppes. "We were unfortunate in losing a good part of our available reserve stock of wall board; but inasmuch as our manufacturing facilities are in no way impaired, we can safely promise deliveries within the 10-day limit I have given."

There will be no interruption whatever in roofing deliveries, as that section of the Heppes Co. plant was untouched by the flames. In fact, the day after the fire one of their biggest orders for Flex-A-Tile giant shingles, their new asphalt shingle of extra weight, strength and thickness, was placed upon the cars for shipment.

Ford Co.'s Fire Three Days Later.

Fire started at the Ford Manufacturing Co.'s plant, East Seventh and Frank streets, St. Paul, Minn., at noon, April 29. The fire started in the boiler room, which was destroyed. Quick work on the part of firemen prevented the blaze from spreading to the rest of the plant.

The Curry Bag Tyer.

At rare intervals in the course of a business experience one finds an invention which, on account of its extreme simplicity and practical operation, revolutionizes old methods that may have been in use for many years. One of the most practical of these developments has been the invention of a new method of tying the neck of a bag.

Most of our readers are aware of the enormous number of bags that are shipped by the manufacturers of cement, plaster and lime, not to speak of the quantities of fertilizer, flour, feed, grain, etc., so packed. A little over four years ago a Mr. J. P. Curry, of New York City, placed on the market a device or tool known as the Curry Bag Tyer. It is a simple, portable tool, somewhat on the lines of a spiral screw driver, and is used in connection with a wire tie.

Up to the time of the appearance of this device wire had never been used for tying bags on account of the difficulty of protecting the end of the wire, as it would be impossible for a man to handle or grasp a bag if the sharp ends were sticking out. Mr. Curry overcame this difficulty by forming a loop at each end of the wire, making a very thorough protection to the hands.

The bag is first necked up and the wire tie is then fastened around the neck of the sack. The wire loops are then attached to the hooks of the tool, and a slight pull of the slide handle of tool revolves the spiral shaft and the hooks. In this way the wire is twisted up securely on the sack and drawn tight, far tighter than hand tying with twine, and cannot possibly slip off the neck of the bag, no matter how severe the shipment or shock may be. The hooks are detached from the wire readily, leaving the loops to form a perfect key for unfastening the wire when the bag is to be opened. The opening of the bag is easily accomplished with the thumb and finger and no knife can be used in this operation.

The method of tying is faster than tying by hand with twine and about three times as fast as sewing. It is therefore economical and of course secure, as each tie is of a given length and is twisted a certain number of times, and it therefore is tied with absolute security and uniformity.

Many of the manufacturing concerns when formerly using twine had great difficulty with their men on account of the twine cutting the hands. This little device eliminates all this trouble and all concerns using it have also found that they can break in green men to do the tying operation within an hour, whereas with twine it often took a week and in the meantime bags were being sent out poorly tied, causing complaints.

On account of these advantages this Curry Bag Tyer has been almost universally adopted by all the cement manufacturers as well as plaster and lime, also in the fertilizer, flour and other bagging trades. This adoption has also extended to Europe, being very largely used in England, France and Germany, and also in many manufacturing plants in all parts of the world.

The J. P. Curry Co., 110 E. 23rd street, New York City, who are placing this bag tyer on the market, report that nearly 600,000,000 bags have been tied by this device since its first appearance on the market. Our readers who are concrete contractors may be interested to know that this little device is also used for tying the intersections of the reinforcing rods and is generally used by most of the large contractors at present. It develops three times the speed of pliers and straight wire, and is, of course, far more uniform. Full speed can be maintained in extreme weather conditions. The simplicity of the invention and the fact that it has almost entirely revolutionized the use of twine for securing bags makes one wonder why such a simple device was not thought of years ago.

Effective Display of Face Brick

Prominent Business Location Selected for Exhibition of Kentucky Building Material Concern's Line

An exceedingly effective display of brick is that just set up by the Union Cement & Lime Co., of Louisville, Ky., in their advantageously situated showroom in the new Starks building, corner of Fourth and Walnut streets, perhaps the busiest corner of that city. Besides its excellent street location, the room—offering the largest floor space that was available in the building—adjoins the headquarters of the Engineers' and Architects' Club, of Louisville, and the door from the club's quarters into the Union company's showroom is never closed.

The company's display is given over entirely to showing the products of the Hydraulic-Press Brick Co., of St. Louis, Mo., the agency for which was recently acquired. Not all of the varieties of brick manufactured by the Hydraulic-Press Brick Co. at its several plants is on display, but enough of them are shown to give a thorough-going idea of how they look in a finished structure. The display was put up by George A. Hoertz, of John Hoertz & Son, of Louisville, and is a striking example of high-class workmanship.

The display is attracting a great deal of attention, not only from architects and builders, but from people in Louisville and the surrounding country who consult Louisville architects. One reason for favorable comment is that the Union company in planning the display sought to get away from the conventional, stereotyped form, consisting of any number of rectangular panels, eight courses deep, each panel set off by a plain strip of mahogany moulding. F. A. Sampson, secretary and treasurer of the company, and Leo M. Parsons, who was formerly with Owen Tyler, spent considerable time in devising it.

The central feature of the display is a brick fireplace constructed of three shades of the Bokhara brick turned out by the Hydraulic-Press Brick Co. at its South Park, O., plant. This fireplace extends from floor to ceiling, and is laid up in black mortar with a three-fourths-inch, rough cut flush joint. The hearth is raised the width of a course of brick from the floor, bordered with a row of headers. An interesting pattern has been worked out on the floor of the fire recess itself, a system of herring-bone being varied with other arrangements. On each side of the fire recess there is a panel of the same brick, the centers composed of

selected brick of a darker shade than the borders, while just under the mantel shelf the face of the fireplace is relieved and set off by a plaque showing some ancient Greek mythological character driving over the clouds in his chariot, all in bas-relief. This plaque, done in an Atlas white cement by the Atlas company, was made especially for the use to which it has been put, and measures one by two feet.

The mantel shelf is formed of a course of headers of the Bokhara brick, and darkest of the three shades being used, while the chimney breast is constructed in the form of a truncated pyramid, until it comes to the chimney wall itself. This wall is shown back of the chimney breast, laid in Flemish bond, while the fireplace itself is laid in other bonds. The recess is faced with the "Golden Mottled Matts" which are made at the company's factory at Brazil, Ind. As is the case with the other brickwork, these brick are laid up with three-fourths inch, rough cut flush joints, only in this case white mortar is used. The effect of the whole thing, the harmonious shading of the Bokhara reds and the contrast with the golden tones of the brick that face the fireplace are exceedingly striking.

The rest of the display is by means of wall panels, the top tier consisting of a row of the customary eight-course displays with various brick joints. The whole wall area on each side of the door by which the room is entered contains such panels.

On each side of the fireplace and on the opposite wall the lower tiers are longer panels divided effectively by means of header courses of the same or similar types of brick as are used in the panels. Invariably these header courses are laid up in three-fourths-inch, rough-cut flush joints, the color of the mortar corresponding to the mortar used on the areas just above and below. An indication of the attention that was paid to architectural principles in the designing of the display is noted in that the colors of these header courses, which are on the same level in every panel, shade into one another with a pleasing facility and greatly add to the effectiveness of the whole.

These lower tiers, as will be noted in the photograph reproductions, do not extend down to the floor line, but reach only to the top of a bench which extends around three sides of the room. They offer

convenient sitting places for almost as many people as can get into the room. The real advantage of this bench is that in each section are kept loose brick and brick bats of the same description as those which are displayed in the panels immediately above. So when Mr. Sampson and Mr. Parsons are showing architects and their clients how the surfaces of certain brick look when the wall is built, they need only to stoop, lower the front panel door of the bench and reach for a single sample brick. This brick will prove to the architect that they are good all the way around and this bat will back up the argument that they are the same all the way through.

The top panel to the right of the fireplace is a "Golden Mottled Matt" area, with a diamond pattern in the same brick of a darker shade, the whole laid up in a reddish chocolate mortar with a half inch V-joint. The larger panel below is of various shades of the same brick, laid in Flemish bond and the same colored mortar. Above a course of headers the wall is laid up in three-fourths-inch rough-cut flush joints, while below the eight courses of stringers are laid in raked joints of the same width.

Next to this display is one of selected Iron Spots from the Collingsville, Ill., factory, laid up in half-inch V-joints of a harmonizing mortar. On the opposite side of the room is a panel showing the Bokhara kiln run brick all laid up in black mortar. The top section is in half-inch raked joints, while the rest, except for the header course, is in three-fourths-inch set-back joints. The next panel is of the "Steel Grey Matts" from the Brazil, Ind., plant, all laid in Atlas white cement mortar. The brick are of selected color and all joints are three-fourths inch and raked, except the horizontal header course.

There is only one panel showing salt glaze brick. This panel is laid in Flemish bond, with a narrow joint of mortar colored to harmonize with the light reddish-yellow tones of the brick and slightly raked. One specially effective panel is of selected red Oxfords from the Brazil plant, laid in English bond with inch-wide joints of white mortar, cut rough and flush. Nearby is a panel of Cherry Red from the South Park plant, laid in Flemish bond in grey mortar with raked half-inch joints.

There are 36 panels in the display which represents to a large degree the "Hy-Tex" line of brick.

In addition to the wall displays the Union Cement & Lime Co. continues its display with loose brick set out on racks, each neatly labeled. In spite of the rather restricted dimensions of the exhibition room, the effectiveness of the display is not adversely affected and the opportunity for a study of the results to be gained by the use of the various brick, with different mortars and diversified jointing is admirable.

Obituary.

John Messenger, a member of the firm of Collen & Messenger, dealers in coal and building materials, at Astoria, a city on Long Island, N. Y., died at his home in that city on Monday, April 20, after an illness of but a few days' duration.

Mr. Messenger was born in New York City in 1854 and received his education in the public schools there. He had travelled extensively in search of rare animals and was at one time a member of Reiche Bros., bird and animal importers.

John W. Gamage, a member of the building material firm of J. W. Gamage & Co., died at his home in Norfolk, Va., on April 17, after a month of illness. He was 52 years old and had spent the last 35 years of his life in the building material business.



CORNER, SHOWING FIREPLACE, IN BRICK DISPLAY OF UNION CEMENT & LIME CO., LOUISVILLE, KY. BRICK IN PANELS OF SAME TEXTURE, BUT DIFFERENT SHADES, SEPARATED BY COURSES OF EXTENDED HEADERS.

Brick Men Adopt Open Price Policy.

With the adoption by the Chicago Face Brick Association on April 15 of the Eddy plan of open prices a decided impetus to the Open Price Policy was given, the Chicago organization completing a list of five associations which have made arrangements for the reporting of price quotations and other items that go to make up the Eddy plan. The Chicago Face Brick Association at its meeting elected the following officers: President, L. D. Binyon, of the S. S. Kimbell Brick Co.; vice-president, Charles Bonnor, of the Bonnor & Marshall Brick Co.; treasurer, Martin Kimbell, of the Kimbell-Hill Brick Co.; secretary, John D. Blount, of the Meacham & Wright Brick Co.; assistant secretary, Louis F. Desmond. The location of the offices will be at 1211 Chamber of Commerce, Chicago, for the present, at least.

The Western Paving Brick Manufacturers' Association, Kansas City, Mo., at about the same time took similar steps for the adoption of the idea, to become effective May 1. Up to date the associations formally adopting the Open Price Policy are:

The Society of Vitified Clay Manufacturers (Sewer pipe). Secretary, W. H. Bassler, 814 Chamber of Commerce, Chicago.

The Iowa Clay Manufacturers' Association (embracing all manufacturers, and statewide in nature). Secretary, C. B. Platt, Van Meter, Iowa.

The Western Paving Brick Manufacturers' Association (covering paving block manufacturers west of the Mississippi River). Secretary, George W. Thurston, New York Life building, Kansas City, Mo.

The Chicago Face Brick Association (embracing, for the present, only the face brick dealers of Chicago). Secretary, John D. Blount; assistant secretary, Louis F. Desmond. Offices, 1211 Chamber of Commerce, Chicago.

The New York Face Brick Association (embracing the face brick dealers in Greater New York).

In addition to the above, the Illinois Clay Manufacturers' Association, secretary, A. E. Huckins, Champaign, Ill., by vote adopted the open price and a temporary organization has been effected with the idea of ultimately getting the clay-workers in the Central West interested in a more comprehensive organization.

There are also several other clay-working bodies, some of them national in scope, that are considering the plan, but these are not sufficiently far advanced to warrant announcement at this time.

"Truss Loop" is Lath of Quality

The most important of the high-class materials manufactured by the Bostwick Steel Lath Co. is their "Truss Loop" metal lath. As stated by the Bostwick Co., "Truss Loop" is made not with the desire to cut the price and therefore, in order to show profit, reduce the weight and efficiency of the goods, but our aim is always to produce quality at as low a cost as possible.

"Truss Loop" lath is made from the finest of raw materials, is strong structurally and is extraordinarily heavy. It is made of the whole sheet, nothing stamped or cut out; but it is so rolled as to form loops made into miniature trusses (consequently absolutely rigid) at correct regular intervals and in such a manner as to produce perfect keys and carry the minimum of plaster. After "Truss Loop" is rolled, each sheet is carefully painted and allowed to thoroughly dry for a period of two days before shipping. "Truss Loop" for stucco, pebble dash or half-timber houses is hard to equal. The reason is because of the remarkable strength, unusual weight, the perfect keying, freedom from wet spots and absolutely uniform surface."

The Bostwick company also manufactures metal corner beads, expanded metal lath, metal wall plugs and metal wall ties. The plant and main offices of the company are located at Niles, Ohio.

Competitive Relations and Price Problems

BY CHARLES WARNER, WILMINGTON, DEL.

(Address delivered before members of the National Builders' Supply Association at their Convention in Chicago last February and read at the Convention of the New York State Builders' Supply Association at Rochester in March.)

It goes without saying that the subject of my address is one of the most difficult and trying, as well as one of the most important questions that the business men of this country have to deal with. We have our various business enterprises, in which many of us have expended our life's work and a considerable portion of our financial worth. It means everything to us whether these various enterprises can earn a just return on all the money we have put into them after allowing for all operating, maintenance and depreciation charges, or whether, on the other hand, we merely manage to keep the enterprises afloat and earn bare salaries for ourselves.

I believe that every business man has a moral right to make a proper return on the money in-

actively advise with business men and associations of business men regarding any practices that may be contrary to the present laws and to public sentiment, but in connection with such helpful cooperation allowing a reasonably broad interpretation of the present laws as to competitive relations that may be entered into between business men. In other words, let our government and our business men work on these lines classed as reasonable and not enforce such strict interpretation of the present laws as will beget ruinous competition.

I admit that such a working relation between government and business is not definite, and the severity or mildness with which these matters may be treated would naturally vary from one administration to another. It still would seem impossible,



SIDEWALL VIEW OF UNION CEMENT & LIME CO.'S BRICK DISPLAY ROOM—STAND DISPLAY AT RIGHT; BENCH CUPBOARD AT BOTTOM.

vested in his enterprise after making allowance for all kinds of costs and expenses of doing business and after allowing a fair salary to himself for his services and proper reserve funds for the business risks.

The worst socialistic agitator or the most drastic Progressive legislator, if he be fair, cannot but acknowledge the justice of this position. Yet we see abroad throughout our land a sentiment against cooperative relations between competitive enterprises. So strong has this sentiment grown in some quarters that many business men feel there is but one of two choices open—the jail or the poorhouse.

We are certainly confronted with some laws, both state and national, such as that represented by the Federal Anti-Trust Law, which, under strict construction and enforcement, would throw many businesses into a competitive condition that would be ruinous. But it seems possible to develop some midway ground, either in reconstruction of the laws or by improved business practices acceptable to a reasonable interpretation of the present laws, which may save the situation.

We are at this moment undertaking the big problem at Washington of some reconstruction, or, as has been termed, more specific interpretation of the Sherman Anti-Trust Law; but in spite of President Wilson's recent reassuring message on this question, I cannot see how the business men of this country are to be fairly treated and honorably encouraged to develop their enterprises consistent with public welfare unless one of the two principles are followed.

First. The formation of a commission that can

however, to make for a much better condition of affairs by working on such lines than under conditions now existing. Such a commission, in its double capacity of adviser both to the business interests and to the Department of Justice, could readily see that no set of business men would develop their combination relations as to unduly extort high prices for their commodities to an extent opposed to public interest.

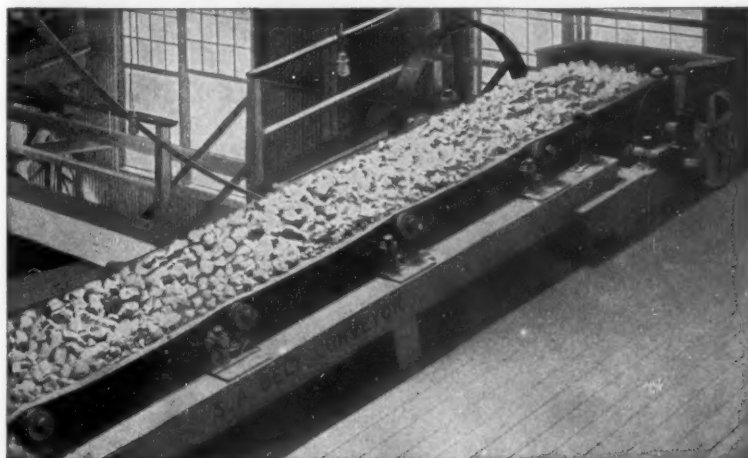
Second. To wipe off the statutes the Sherman Anti-Trust Law and similar state laws, and place in lieu thereof a law permitting combination relations between business men in any one of various forms, but placing in power a commission with such authority over business interests as the Interstate Commerce Commission has over railroads.

Under such a working commission there would not be any advisory relations, but a definite power and authority to prevent any combination action as to price or practices which would be against public interest. As a part of such law, the moral and just right of the business man to earn a fair return on his investment after all expenses of all kinds should be instituted as fundamental. It should only be under conditions where two or more business men might attempt to establish prices abnormally high or adopt practices working toward unfair monopolistic control and the elimination of weak competitors that the action and power of such a commission should be used.

Broadly speaking, this second line of action is the one more generally approved of by the Progressive party of the United States and believed by

(Continued on Page 29.)

Efficiency in the Cement Products Plant



The first step towards efficiency is to reduce the labor cost. Eliminate that most uncertain and most worrying factor—the unskilled labor—and handle all of your materials on “S-A” Belt Conveyors and Elevators.

In many Cement Products Plants, our engineers have studied the situation and have devised new methods productive of wonderful savings. They have adapted “S-A” Conveyors to the unloading of the sand and gravel from the cars to the storage bins, and from these bins to the hoppers serving the machines. “S-A” Feeders, Gates, and Revolving Screens, entered into the arrangements where required.

These systems have all paid big dividends—and they were developed by our engineers and submitted for approval before a cent of expense was charged to the plant.

May we study your methods and try to improve on them? Write us the conditions under which your materials are handled—send a sketch if possible. If we can actually save you labor, we will submit you our proposition and prices.

Stephens-Adamson
Mfg. Co., AURORA, ILL.

NEW YORK CHICAGO PITTSBURGH ST. LOUIS LOS ANGELES
BOSTON SALT LAKE CITY TORONTO VANCOUVER

HAVE YOU SEEN OUR NEW BOOK ON BELT CONVEYORS?

It's the most interesting and valuable book on this subject ever published. Write for your copy.

We design and equip Rock Crushing Plants, Sand and Gravel Washing Plants, Screening Plants, Storage Systems.

We manufacture Conveyors, Elevators, Transmission Equipment, Gates, Feeders, Car Pullers, Etc.



KesselKar truck operated by Brubaker Bros., San Dimas, California

We have a KesselKar Truck that will exactly meet your needs—

The business man who has been doubtful about motor trucks meeting the demands of *his particular business* should investigate the new series of KesselKar Trucks.

There are six sizes—1500 lbs., 1, 1½, 2½, 3½ and 6 tons. Bodies are built to order, so there is no delivery duty into which a KesselKar Truck will not fit.

You are not asked to readjust your delivery system to the truck—just tell us what you want to haul and we'll furnish a truck that will do the work expeditiously and economically.

Mechanically, no trucks are better than KesselKar Trucks. Compare them, point by point with others, and then ask present owners for their experiences.

Send for the new Truck Book with 350 illustrations of KesselKar Trucks in actual use—it's free to you for the asking. Write now while it is on your mind.

Kessel Motor Car Company

548 Kessel Avenue, Hartford, Wisconsin

New York
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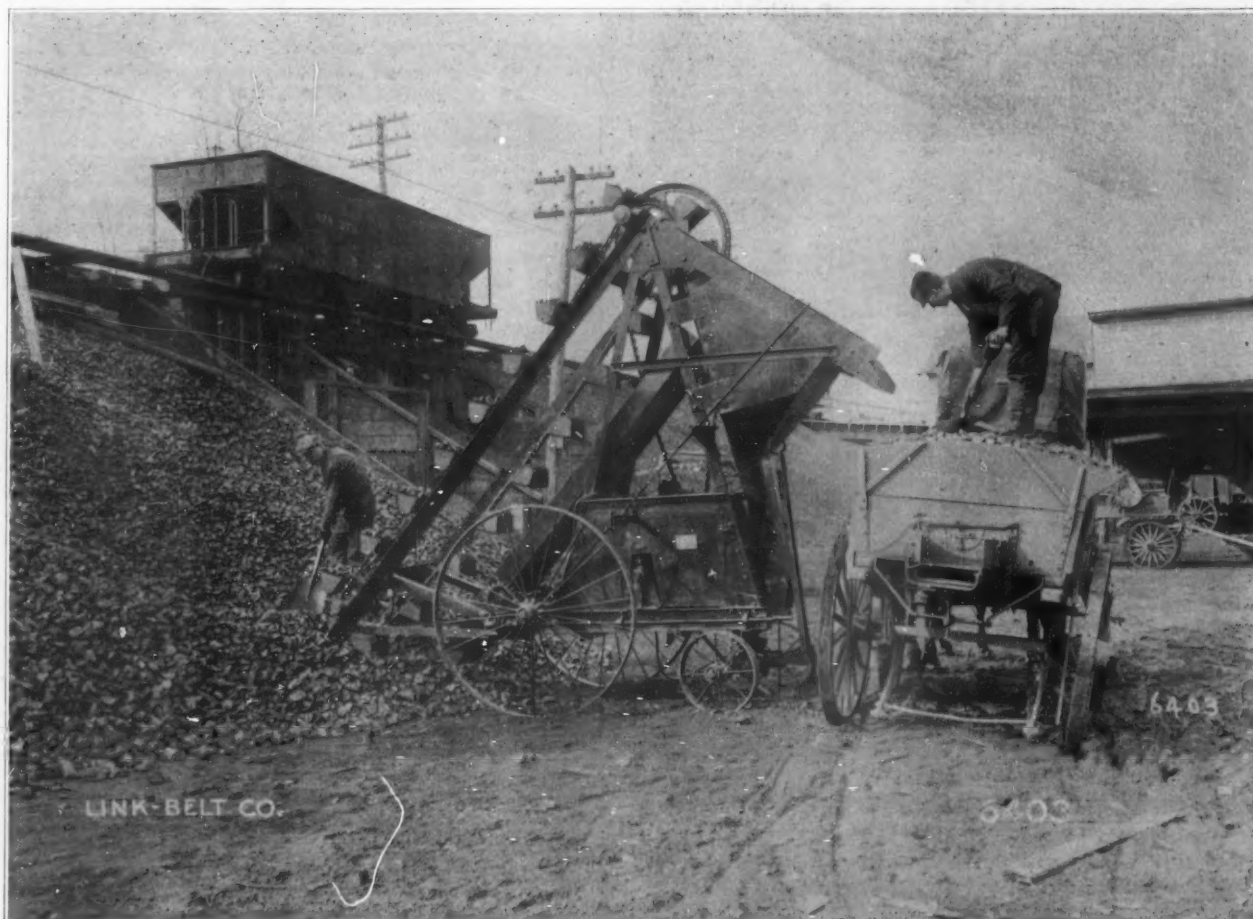
Dallas, and 350 other American and Canadian Points

KISSELKAR TRUCKS

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Link-Belt Wagon Loaders at Low Prices

Now is the Time to Investigate This Modern Labor-Saving Method of Loading Your Loose Material—Sand, Stone, Gravel, Coal, Etc.



This Standard Model "D" Loader will successfully handle all kinds of coal—Bituminous, Anthracite—Run-of-Mine—at the rate of 60 tons an hour. Also loads Sand, Stone, Gravel, etc. Gasoline or Electric Motor Driven—Hand-propelled or Self-propelling.

The great demand for Link-Belt Portable Wagon and Truck Loaders has enabled us to standardize our machinery and build these machines in larger quantities than ever before, and we are giving the trade the benefit of the reduction in cost of manufacturing which we have been able to make. The lower prices take effect immediately.

Every dealer who carries loose material on ground storage will now find it to his interest to investigate at least the Wagon Loader Method of loading it into wagons and trucks. Return the coupon today.

The past three years have demonstrated the efficiency of the Portable Loading Machines. They are in successful operation today from coast to coast handling bituminous, run-of-mine, anthracite, stone sand, gravel, clinker, and similar loose materials quicker and cheaper than by any other low-cost method.

With the Link-Belt Loader you can load a ton of coal per minute—or a 5-ton truck in less than five minutes. You can readily figure out yourself what this would mean in your own yard.

WE ALSO DESIGN AND BUILD—Locomotive Cranes for handling and storing loose material—Railroad Car Unloaders—Complete Conveying Machinery Equipment for the efficient and economical handling of sand, stone, gravel, coal and similar loose materials.

Catalogs on Request

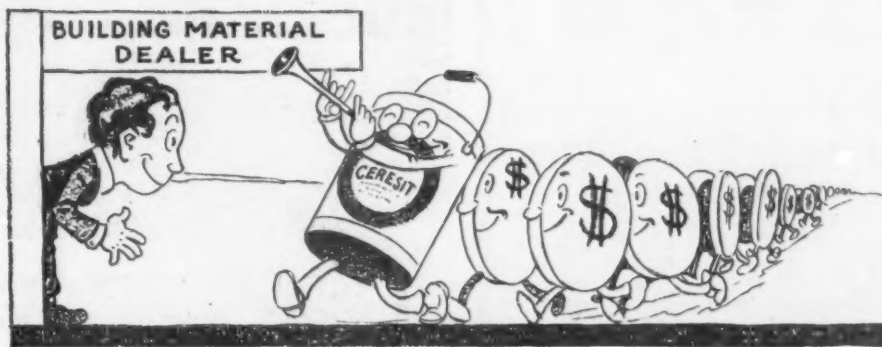
LINK-BELT COMPANY
Nictown, Philadelphia, Pa.

Without obligation, you may send us Booklets, Revised Prices and information regarding the Link-Belt Portable Wagon Loader. We handle about _____ tons of _____ a day from ground storage to _____

_____ 1914.
(Name) _____
(Address) _____
(Town and State) _____

Rock Products.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



And The Dollars Come Flocking After

The profit on Ceresit itself, handsome as it is, is not the only profit. Cement and sand are needed with Ceresit. Ceresit therefore boosts cement sales, for every building using Ceresit for waterproofing must also use cement and sand.



The Dependable Waterproofer For Cement

When you handle Ceresit, the dollars come following after—right into your bank account.

A DEALER A DAY!

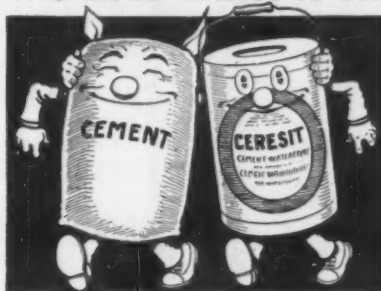
That's our aim. And we're getting a dealer a day, too. The wise ones are writing in *now*—getting good territories before they are all gone. Get busy. Write for our liberal proposition.

Ceresit Waterproofing Company

924 Westminster Bldg., Chicago

FACTORIES—Chicago, Una, Germany, London, Paris, Vienna, Warsaw.

TWO GOOD THINGS TO USE



THEY GO WELL TOGETHER



Asphalt shingles never were made so strong and stiff as these

First we procure pure wool and compress it into long, strong-fibred felt. Then this is thoroughly saturated with **TWICE ITS WEIGHT** of asphalt. Over this weather- and moisture-proof sheet we apply a coating of gilsonite—a tough, rubbery, very high melt point asphalt from which all the oils have been removed. And into this, while still hot, we compress, under tons of pressure, the slate or gravel surfacings, whose beautiful; lasting, natural colorings, of red, greenish-gray, garnet, emerald and brown, age only makes more brilliant.

Flex-a-Tile GIANT Asphalt Shingles

More wool and purer wool than other makers use. Asphalt of better grade and **HIGHER MELT POINT**, because we alone employ a direct heat **BENEATH** our saturation kettles. Oils in roofings dry out and evaporate under a hot sun, so we eliminate them entirely. Even in saturating the wool, instead of using oil, we make the asphalt a thorough saturant by melting it at a tremendously high degree of heat.

Of course, it costs us more to insure this extra rigidity, this extra weight and strength. But still we keep the price to you as low as you must pay for inferior brands.

Just write now and say, "Send me specimen Giant Flex-a-Tile." You assume no obligation. Get all the facts. Write today.

THE HEPPEES CO.

Manufacturers also of Asphalt Paint, Asphalt Roofing in any Finish, and Utility Wall Board

1034 South Kilbourne Avenue, CHICAGO, ILL.



The Dealer's Profits

are increased by the handling of Rex-tile Shingles because—

They are popular with house owners and building contractors everywhere.

A national advertising campaign is now in progress to acquaint ALL owners and builders with Rex-tile Shingles.

Rex-tile

TRADE MARK

"The Scientific Shingle"

has two great advantages.

First—the color is an actual part of the shingle itself. Nothing to wash off, crumble or blow off. No danger of becoming streaked or spotty. No painting necessary. The colors are a soft dull red and blue black slate of great beauty.

Second—the turn-under fold at bottom for nailing. This gives a double rounded butt-end—covering all nails against weather, and shingles are securely fastened at the bottom. Water cannot "back up" or leak through. No danger of flapping, cannot warp, crack, buckle or curl up. **Absolutely wind proof.** This feature is patented and exclusive.

These are **some** of the reasons why a dealer should handle Rex-tile Shingles. Be sure to write today for special dealer's proposition and samples of Rex-tile Shingles. They'll tell you more than words can.

FLINTKOTE MANUFACTURING CO.

91 Pearl Street, BOSTON, MASS. 658 Peoples Gas Bldg., CHICAGO

Manufacturers of Famous Rex Flintkote Roofing for factories, warehouses, farm buildings, etc.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

COMPETITIVE RELATIONS AND PRICE PROBLEMS.

(Continued from Page 24.)

Colonel Roosevelt, George W. Perkins and others, so far as I have been able to interpret their views, as the fairest and safest plan for all.

The first line of development mentioned above seems, however, to be the one towards which the present administration is tending in its study and probable modification of the bills now before Congress. From my point of view, these bills have not yet been brought to a form sufficiently just to the business men to encourage permanent activity and development in our industrial world. Each of us, however, during the next few weeks should do our part to see that fair sentiment prevails in the final drafts of these measures and that just practices may be instituted in the proper interpretation by the new commission of these new laws when finally passed. For practices can be adopted against the business men that are just as bad as any practices that may have been or may in the future be adopted by business men.

And now let us consider such associated or individual efforts which may be or should be considered equitable under the proposed modifications of the present laws and in line with that portion of public sentiment which stands for sufficient earnings in all business enterprises.

As matters now stand or are likely to stand for some time to come, it is illegal for two or more business men to agree on fixing prices for their commodities in any way, shape or form. On the other hand, it seems to me just as wrong and even more reprehensible to subject two or more men to conditions which mean secret warfare against each other, misrepresentation and even lies on the part of customers, forcing such business men, step by step, under conditions of secret trading, to a no-profit basis.

Public sentiment today says that the public interest is best served by proper publicity methods and open and aboveboard tactics in all matters; that the time of secret trickery in business deals is past; that it is time to stop economic waste by present methods in many businesses of spending large sums in sales work to secure unreliable information in a secret fashion; that public policy and business economics of today call for the shortest, fairest and cheapest method of arriving at an end. This end in the marketing of materials can only be logically secured by one method, no matter how it may be conducted. That method is the open price policy, the wisdom and fairness of which is most ably presented by Mr. Arthur Jerome Eddy, of Chicago, in his book entitled "The New Competition." It is the one logical short cut to honest dealing and reduced sales expenses when honorably followed by the business man in any particular line. It has a tendency to make for fair competitive prices and brings competition out into the open, where both producer and consumer can see the whole subject. It has a tendency to prevent that form of ruinous secret price cutting which leads to the business grave. This I believe to be in line with fair public sentiment.

On the other hand, the open price policy properly conducted does not make for fixed prices nor unduly high prices, except under possible conditions of an excessive demand over supply. In this latter case, the high prices would prevail anyhow, and only during such a temporary period.

The conduct of the open price policy must be kept free from any agreement between two or more business men interested in the same industry and every business man in that industry must be and feel entirely free to make such prices as he chooses.

Only by such a relationship and by such practices does it seem possible to keep in accord with the present laws and public feeling, while at the

same time tending to prevent the ills of ruinous and unprofitable competition.

The open price policy merely means to a tremendous body of business men in this country the adoption of a method to honorably and accurately present to all the sellers and buyers the same information that the produce, grain and stock market quotations provide to the business men interested in those lines. Such prices are not "fixed," but run almost uniform as between the sellers at any one time, and they normally fluctuate to some extent according to market conditions, production, stocks, consumption and other elements affecting the commodities in question.

How should the open price policy be conducted? Mr. Eddy, in his important contribution to the subject, claims that an association is the only proper method of carrying out this plan, and in many quarters associations or business men have been established partly for this purpose. An association has its advantages and its disadvantages. It admits of frequent meetings and fair and open discussion for the purpose of impressing on members the proper principles to be followed. It certainly helps to make the members more honorably inclined toward a fair handling of the principle and permits of thorough discussion of any injustices that may be developed against producer, wholesaler, retailer or consumer. The proper handling of the open price policy means that meetings are open to buyers and sellers concerned, and as well to the government or state officials. The meetings of such an association should provide a time and opportunity for anyone who has a grievance to present it.

On the other hand, it is claimed by some that it is impossible under the present interpretation of the Sherman Anti-Trust Law or similar state laws to hold an association meeting without in some way developing a tendency to fix prices, no matter how zealously it may be the intent and object, both of the organization and of its members, to hew to the line of independent freedom and action in all matters pertaining to market prices. Some claim that for these reasons the natural tendency to drift into practices approaching agreement between individual members almost amounts to prima facie evidence against the organization and its membership, from a legal point of view. It would seem that theoretically and probably under extreme care in hewing to the line of independent action and absolute lack of agreement in any way, shape or form between members, that an association to conduct the open price policy would be consistent with the present laws and public sentiment.

Seeing these possible points of weakness in the practical operation of an open price association and the possible trouble of maintaining those good practices necessary to meet present day legal and public requirements, a modification in the handling of the general plan has been developed which seems to fairly fill all conditions required or desired by the three great divisions interested—the producer, the consumer and the government.

This modification, which has been developed in at least one industry that I have knowledge of, is merely an open price bureau, organized and operated by business men not interested in the industries to be served, but interested only in conducting the bureau and the service that goes with it for the profit of the manager. This manager is at all times interested to render every possible service to the various subscribers to his bureau. He contracts with all producers in the industry concerned who can be interested to accept the service rendered by the bureau and in return for such service, covering a number of features, the subscriber agrees to supply his prices and changes for general publication to the trade, and further agrees to make certain cash payments to the bureau.

There is no question or uncertainty regarding an association or the probable development of illegal practices in fixing prices growing out of associa-

tion meetings, so far as the bureau is concerned and so far as individual members are concerned. Each subscriber is free to do as he chooses, and unless he voluntarily elects to assume his own direct personal responsibility of seeing some other subscriber and discussing the question of prices, he transgresses no law nor general sentiment in merely supplying his true prices and changes thereon to the bureau.

There is no question of joint membership in such a working plan or no association or aggregation of interests in an organization sense. The bureau, properly handled, occupies as fair and honorable a position as such organizations as Dun's and Bradstreet's. A live manager of such a bureau, in order to make his services of value and enlarge his list of subscribers from the particular industry being served, will develop other features of assistance to his subscribers.

In the case of the bureau I have some knowledge of, being the Lime Service Bureau established by Henry M. Camp, of Washington, D. C., to serve the lime manufacturers in the eastern section of the United States, the work covers not alone the publication of prices of subscribers as turned into the bureau, but the publication of reports showing the operation of plants in districts affected, the market conditions from week to week, trade letters on the general features affecting the industry, development of the collective purchasing power of the subscribers in buying some of their raw materials in larger lots at lower prices, etc. In the case mentioned, the proprietor naturally seeks to assist his subscribers in every manner possible to gain a legitimate profit, and to this end he proposes to help subscribers to establish cost record systems that will more truly show many of them, now poorly informed, the true costs of their production, depreciation, maintenance, obsolescence, selling, executive and other expenses.

All of such work is tending towards the elimination of economic waste and fair and more accurate dealing between competitors, as well as between producers and consumers.

Such methods of handling competitive relations and price problems may not appear satisfactory to the business man who has been accustomed to working up an agreement and fixing a price for the sale of his commodity on the part of all competitors and not infrequently at a price higher than that needed to give a legitimate profit. To such men, this open price policy may seem a very unsatisfactory and unprofitable plan, but such business men have not yet sensed the service nor appreciated the strength and force of the laws as now being applied nor have they had their ears to the ground to get a true line on modern business methods.

The change in public feeling and methods must be accepted, and I personally have become convinced that the open door in our room of competition leads direct to the open price, and according to the beliefs of the business men, may they adopt the association idea or accept the position as subscribers to an independently conducted bureau.

I trust that this summing up of this question may be of some little service to the members and friends of the National Builders' Supply Association. It is my object in presenting this paper to try to give you an outline of these conditions as developed to date in as comprehensive a manner as possible in the short time allotted.

Memphis Dealers on Jaunt.

A good-sized delegation of the members of the building trades committee of the Memphis, Tenn., Business Men's Club took a jaunt down the Mississippi river to Helena, Ark. The idea of the trip was to give the members of the Helena Industrial League points on the formation of a similar committee, as well as for the Memphis men to meet their Helena customers and form the acquaintance of new friends.

The market place of the building material industry. Employment department, machinery wanted and for sale, etc. If your wants are not answered in this page, write a letter to this office.

THE FRANCIS PUBLISHING CO.
537 S. Dearborn Street Chicago, Illinois

:: THE :: BOURSE

Advertisements will be inserted in this section at the following rates:

For one insertion.....25 cents a line
For two insertions.....45 cents a line
For three insertions.....60 cents a line

Eight words of ordinary length make one line.
Heading counts as two lines.
No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

EMPLOYEES WANTED

GENERAL SUPERINTENDENT WANTED.

WANTED—For a quarry in the South having a capacity of 500 yards crushed rock daily, a general superintendent, with practical quarry experience and with ability as sales manager. Apply with references to "CRUSHER," care Rock Products and Building Materials.

EMPLOYMENT WANTED

QUARRY EXPERT seeking position as superintendent. Am mechanic and erector; I always reduce cost. Crushing proposition preferred. Best of references. Address Box 992, care Rock Products & Building Materials.

WANTED—Position is superintendent of quarry. Thoroughly familiar with "big blast shots." Fourteen years' experience. Address "Live Wire," care Rock Products & Building Materials.

QUARRY SUPERINTENDENT

Wants position, operating or construction crushing plant. Twenty-two years' experience with large firms using all kinds of equipment. References.

WM. TURK, No. 19 E. 9th St., Alton, Ill.

QUARRY SUPERINTENDENT OR MANAGER.

Position wanted by operator with 15 years' experience in handling large stone crushing properties with all kinds of equipment, by the most up-to-date methods. At present employed. Open for engagement May 15th. Best credentials. Address "Quarry Operator," care Rock Products & Building Materials.

POSITION AS SUPERINTENDENT.

Position wanted as superintendent of lime works by a hustler of fifteen years' experience, capable of taking full charge of plant, including quarry, and can be depended on at all times to keep things up to the minute and in working order. Can furnish best of references from former employers and produce results. I am thoroughly familiar with Gas Producer and direct fire kilns. Also Hydrate Mill and Stone Crusher. Address "Results," care Rock Products & Building Materials.

WANTED—Position as superintendent or foreman with sand and gravel plant or concrete construction company. Am 36 years old and have had several years' experience in above work. Understand office work. Would take job of assistant or timekeeper with responsible firm, provided there is a chance for advancement for a hard worker. Want to get with concern where position will be permanent. Good references. Address Box 988, care Rock Products and Building Materials.

MACHINERY WANTED

WANTED—One second-hand Broughton 2000 lb. Mixer. Address Box 989, care Rock Products and Building Materials.

WANTED—Rock grinder or pulverizer capable of reducing 2" to 5" hard limestone to pass through a ¼" screen, minimum 5 tons per hour.
BITTINGER & ROHRBAUGH, Hanover, Pa.

WANTED—Have inquiry from customer for two Sturtevant or Kent Mills. Advise fully as to condition, location and price.
CAROLINA MACHINERY CO., Asheville, N. C.

WHO WANTS IT?

Marion Steam Shovel,

60 ton Model "G," shop No. 663, 24 yd. dipper. Located in Chicago; overhauled; immediate shipment—at less than 30 cents on the dollar.

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

AN OPPORTUNITY IS OFFERED YOU, MAY 21st.

by Trustees, to secure the plant and property of the OAKLAND PRESSED BRICK COMPANY, Zanesville, Ohio.

This plant made "OAKLAND RED SAND FINISHED" and Terra-Cotta face brick and marketed the same in this country and Canada.

Machinery and kiln capacity is 30,000 brick per day. Shales and clays adjacent the plant practically inexhaustible and from which High Grade face, paving brick and tile are made. There are abundant other clays suitable for fireproofing, hollowtile and pottery. On one parcel of the 30 acres of land offered, is 400,000 tons sand and clay used in making Iron Moulding Sand. This plant is located on the National Pike, to be paved from West Va. to Indiana in the next two years. Abundant and suitable fuel carted from nearby mines to furnaces as needed. Eight lines railroads handle car lots this plant to any point. Write Stanley J. Crew, Attorney-at-Law, for further information

J. W. LANE & J. H. LININGER, Trustees.

PLANTS FOR SALE

FOR SALE—CONCRETE FACTORY

In best town in Southeastern Ohio, on railway and paved street. Mixer, block, cement shingle, fence post, machinery, etc., all in good repair; also a nice retail supply business.

H. D. MOOREHEAD,
620 Marietta St., Zanesville, Ohio.

FOR SALE—Small sand and gravel plant, practically new. Excellent shipping facilities and railroad connections. Established and growing business. Good margin of profit. Needs personal supervision. Owner has other interests. Will sell right. Address Box 991, care Rock Products & Building Materials.

FOR SALE—Fully equipped high calcium limestone property. Three patent kilns, new crusher, electrical equipment, eastern Pennsylvania, good Market, chemical and fluxing trade. Good opportunity for the right man. Address Box 968, care Rock Products.

CARS & LOCOMOTIVES FOR SALE

CARS.

156—5 yard 36-inch gauge all steel Peteler 2-way dump cars, built 1910 and '11. Thoroughly overhauled. Practically good as new. The best dump cars we have ever seen. We are putting these cars on the market at bargain prices. Write us for further information. Eight 36-inch gauge double-truck flat cars.

LOCOMOTIVES.

Eleven—12x18 Porter four-wheel saddle-tank 36-inch gauge locomotives, built 1910 and '11, and used until the end of the season 1911; practically new.

One—11x16 Pittsburg four-wheel saddle tank, 36-inch gauge.

Thirty-five 9x14 Porter four-wheel saddle tanks, 36-inch gauge. Most of these have steel cabs and were built since 1902.

STEAM SHOVELS.

Three—Marion Model 60 steam shovels, in excellent condition; ready for immediate shipment.

One—Bucyrus Model 65, with Model 70 front and applied. Thoroughly overhauled.

Two—Marion Model G shovels, in first-class condition. Also big lot steam shovel repair parts, and other contractors' equipment.

MINNESOTA EQUIPMENT CO., Hibbing, Minn.

WHO WANTS IT?

20-End Dump Quarry Cars

36" gauge, 2 yard capacity; all steel construction. Bargain!

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

FOR SALE QUARRY MACHINERY

CORLISS ENGINES: Two 18"x30" Allis-Chalmers Corliss Engines, right and left hand, rated 200 H. P.

BOILERS: Three 200 H. P. National Water Tube Boilers, 120-lb. Steam Pressure, Tubes 4"x18 ft.

AIR COMPRESSORS: One 13"x22"x16" Ingersoll-Rand two stage, belt driven Air Compressor.

One 8"x8" "Bury" Engine driven Air Compressor with Air Receiver and Automatic Pressure Regulator.

FEED WATER HEATER: One Cochrane Feed Water Heater, capacity 1000 H. P.

VERTICAL ENGINE: One 7"x7" American Blower Co. Automatic Enclosed Vertical Engine.

STONE CRUSHER: One No. 5 Gates Gyratory Stone Crusher complete. One Jaw Crusher.

STEAM SHOVEL: One 30 ton Vulcan Self-propelling Shovel with 14 yd. dipper bucket.

LOCOMOTIVE: One 13 ton 24" gauge Shay Geared Locomotive. Also a number of 24" gauge Dump Cars.

Besides the above, we have a lot of Steam and Centrifugal Pumps and some miscellaneous machinery including

Steam Hammer, Engine Lathe, Hoists, Pulleys, Gears, etc., etc.

Ingersoll-Rand Rock Drills, Stone Screens.

All suitable for Stone Handling Plant. Prices low for quick sale.

Address

THE SOLVAY PROCESS CO.
Purchasing Department, DETROIT, MICH.

WHO WANTS IT?

Complete Sand and Gravel Screening Outfit

Made by Stephens-Adamson—Brand New—Never set up—at less than 50 cents on the dollar.

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

BUSINESS OPPORTUNITIES

CLAYWORKERS CASTINGS GREY IRON.

Foundry Castings—Prompt delivery. WM. E. DEE CO., Foundries & Machine Shops, Chicago and Harvey, Ill. All kinds of clay-workers castings, dies, dryer cars, grate bars, etc. Main office, 30 N. LaSalle St., Chicago, Ill.

AGRICULTURAL LIME AND CRUSHED STONE QUARRY FOR SALE.

A well-developed lime and crushed stone quarry in Eastern Tennessee, situated on the Southern Railway, of approximately 43 acres, is now offered for sale at a very attractive price on reasonable terms. A big market exists in the territory for agricultural lime. Modern road building is now going rapidly forward, which will make a good outlet for that product. Full information and details obtained by referring to file 47833 and writing M. V. Richards, Land and Industrial Agent, Room 371 Southern Railway, Washington, D. C.

WHO WANTS IT?

Gates No. 7½ Style "K" Crusher,

Shop number about 6,000, AS GOOD AS NEW, shows no wear—at less than 60 cents on the dollar.

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

FOR SALE

PLANT and EQUIPMENT

Including Locomotives, Gondolas, Derricks, Hoisting Engines, Boilers, Concrete Mixers, Rock Drills, Buckets, Pumps, Engines, Elevators, Conveyors, and Camp Equipment.

ALABAMA POWER COMPANY

Engineering Department, BIRMINGHAM, ALABAMA

WHO WANTS IT?

McMyler Locomotive Crane

38 foot boom, 1 yard Clam Shell, 12 ton capacity—condition perfect—at less than 70 cent on the dollar.

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

Paper Bags
of
Quality.

For All Purposes

The Jaite Company
Boston, Ohio

WHO WANTS IT?

Thew No. O Steam Shovel,

¾ yd. dipper, revolving, on traction wheels, Shop number about 600—Bargain for quick disposal.

WILLIS SHAW MACHY, COMPANY
New York Life Bldg., CHICAGO, ILL.

CEMENT

Iola Company Lets Large Contract.

Work on New Mill Near Kansas City to be Pushed.

Interest of cement men is centered largely in the plans of the Iola Portland Cement Co., which is now core boring near Rosedale, Kan., with the idea of determining whether the site is suitable for the erection of a plant with a capacity of 2,000 barrels. Options have been secured on several other promising sites, however, and that the concern will build is a foregone conclusion, according to President H. Struckmann and other officers of the company. The present site seems to come up to expectations and the plant probably will go up there. A big hill will be removed, and in case the company eventually decides not to build, railroads which have been balked by the presence of the obstruction will pay the company a tidy sum for removing it. Postponement of the building, however, is considered a remote possibility by officers of the company. The wet process will be utilized in the plant, which will shoot only once or twice a month, through the use of the churn drilling method. Plans call for a dustless plant. Coal will be burned under the boilers. No power house will be built, arrangements having been made with the Metropolitan Street Railway, of Kansas City, for power. Sections 1 and 2 of the Iola, Kan., plant will be brought to that near Kansas City. Much new machinery will be installed, however. The company will do its own construction work. The total capacity of the company will be that which has been available for some time, 6,500 barrels, 4,000 of which will be made at Iola, and the remainder at Kansas City. This distribution will allow the company to market its output with more facility.

The war between the California Portland Cement Co. and the fruit growers in the neighborhood of its plant at Colton, Cal., has been brought to a close by an agreement of the cement company to buy the orchards of the farmers at a cost approximating \$100,000 for the 120 acres involved. The company has been engaged in continual lawsuits with the orchardists for about five years.

The California Board of Harbor Commissioners has awarded to the Henry Cowell Lime and Cement Co. a contract for 75,000 barrels of cement at \$1.64 per barrel net, to be delivered during the coming pany has filed articles of incorporation in San Francisco, the capital stock being placed at \$200,000. The incorporators named are: H. C. Lucas, A. L. Whittle, J. A. Gregg and J. F. Shuman.

Members of the Louisville, Ky., Engineers' and Architects' Club, 100 strong, made a tour of inspection of the Speed cement mills, at Speed's, Ind., near Sellersburg, a few days ago. Despite

THE BOURSE—Continued.

An Opportunity For

BIG RETURNS

A partner is being sought for, in a new treatment which has been patented in this and foreign countries, for the manufacture of artificial stone, bonded by burning, out of waste material. The necessary machines are nearly completed. Also the patent can be sold and the license granted. Only interested parties please answer, care R. P. 1729, to the

TONINDUSTRIE-ZEITUNG, BERLIN, N. W. GERMANY.

"A Strong Start is Half the Battle."

the unfavorable weather the party spent all afternoon on the premises of the plant and were shown through the entire place. A demonstration of a safety explosive in the quarry was the feature of the affair. J. J. Fogarty, of California, showed how it worked. O. P. Ward, of the club, was in charge of the party.

CEMENT RATE INCREASE DEFERRED.

The Interstate Commerce Commission at a general session held April 24 ordered a suspension of rate increases on shipments of cement between points in Illinois and points in Minnesota, schedule of which was filed by the Missouri, Kansas & Texas Railway Co. The railroad company sought immediate rate increases, but after complaints had been received protesting against the advance the commission decided that such rate advance shall be deferred until a hearing on the question is given, which will come before the Interstate Commerce Commission on July 30.

The Fuller Engineering Co., of Allentown, Pa., has closed the contract for designing and constructing the new plant for the Dominion Portland Cement Co., Ltd., which is to be built in New Zealand at Whangarei, near Auckland.

The Iowa Portland Cement Co., Des Moines, Iowa, makers of Hawkeye Portland cement, has trebled the sales of its product in the past three years, according to the statement of one of its officials. The company now makes over a million barrels per year. In the manufacture of this cement the

The Marquette Cement Co., La Salle and Chicago, Ill., has been awarded the contract for supplying cement to the state of Illinois for one year. It calls for the furnishing of 400,000 barrels at 95 cents a barrel, and is the largest contract for cement ever let in the state.

raw material, limestone and shale is ground wet instead of dry. The Iowa Portland Cement Co.'s product is distributed in the states of Iowa, Minnesota, North and South Dakota, Missouri and Nebraska. The plant is located within the corporate limits of Des Moines on the tracks of the C. G. W., C., B. & Q., M. & St. L. and Rock Island railroads.

At a recent meeting of the Pacific Portland Cement Co. in San Francisco the following directors were elected: Frank G. Drum, R. D. Robbins, Alexander Hamilton, Fred Reis, Jr., W. F. Detert, John D. McKee and John G. Sutton. Frank G. Drum was elected president to succeed the late Wakefield Baker, with R. D. Robbins as vice-president; F. W. Erlin, secretary, and R. B. Henderson, treasurer and general manager. The annual report showed a prosperous year for 1913.

The Phoenix Portland Cement Co., Nazareth, Pa., recently held its annual meeting at which the following directors were appointed: C. C. Carman, J. C. Parsons, A. C. Wood, of Philadelphia; J. W. Walker and C. L. McKenzie, of Pittsburgh; John S. Osterstock and George A. Cooley, of Easton, and George W. Laub and Ira L. Gilkyson, of Nazareth. The directors organized by electing Mr. Walker president, Mr. Laub first vice-president, Mr. Parsons second vice-president and Mr. Gilkyson secretary and treasurer.

Louisville Cement News.

Louisville, Ky., May 5.—Manufacturers of cement whose headquarters are in Louisville are accumulating stocks just now faster than they are moving out. All are hopeful that the condition of business as the season progresses will come up to present reasonable expectations and prospects, though at the present time most of them are in position to handle larger orders than they are getting.

Most of the orders for cement and lime and kindred materials handled by J. B. Speed & Co. are for small work, according to Henry Gray, secretary and treasurer of that company. Though this company has a number of large deals in prospect and numbers of inquiries, they are slow in materializing.

"Lime and cement are staples," said an officer of the Union Cement & Lime Co., "and the trade in these lines is more or less the same at all seasons of the year." This official declined to complain about conditions and thought that there was little occasion for discouragement. As with other dealers in these products, though there is something of a dearth in the way of large building operations at the present time, the concrete construction work in the canal, the sewers and street and railway, not to mention miles of concrete sidewalks which are to be constructed in Louisville this summer and a big government dam at Henderson, Ky., in the Ohio river, are furnishing a very insistent demand.

Chattanooga, Tenn., builders' supply men are interested in the litigation between the Dixie Portland Cement Co. and the state revenue agent. Some time ago this agent assessed the cement company along with a number of other Chattanooga concerns with alleged claims for back taxes. The Dixie company insisted that it was not remiss in this matter and as a last step in the matter has obtained an injunction against the state revenue agent, whose name is M. R. Owen. The contention of the company is that it pays taxes on real estate in Marion county, where its Tennessee plant is located and that only its offices are located in Hamilton county. Further it contends that its accounts are listed as assets and that the company is assessed for these in Kansas where the headquarters of the company are established.

Kansas City Cement News.

Kansas City, Mo., May 4.—The demand for cement in Kansas City itself has been better than members of that branch of the supply trades dared hope. A number of big concrete projects progressed steadily throughout the winter, the weather being mild enough to allow work to be continuous. Many of these are now being completed, but new ones are cropping up almost constantly and there is little doubt but that summer and fall business will be of heavy proportions. Fall trade, of course, is dependent almost exclusively on results of the year in agricultural circles. At present, however, the outlook is so flattering that cement men believe 1914 will be a big year all around. Country business is still feeling the effect of the 1913 drouth somewhat and is a bit backward. The market is steady, having adjusted itself since the cement manufacturers of Kansas turned their gas-burning equipment into coal.

Despite the fact that country trade has been below average in volume during the past winter, the Kansas City Portland Cement Works, whose plant is located at Sugar Creek, has run to capacity for several months past. The company has

supplied cement for many of the big concrete projects in Kansas City and thus has felt the country lull only slightly. The concern is winding up deliveries on the new Union depot, on which the finishing touches are being put by the general contractors. The same is true of the new Montgomery Ward plant, which required about 75,000 barrels, half of that handled at the Union depot. The company is delivering 45,000 barrels to the Twelfth-street viaduct, 20,000 to the new Southeast high school, and smaller amounts to projects of somewhat less size. Much new work is contemplated in Kansas City, and with crop prospects flattering, Sales Manager H. Norcross is in an optimistic mood. New crushing machinery and other equipment has been installed in the plant at Sugar Creek since coal-burning machinery was installed, and the company is in good shape for summer trade.

The Bonner Brand Portland Cement Co. has decided to the Bonner Portland Cement Co. eight tracts of land at Bonner Springs, Kan., 18 miles from Kansas City, this being the final step in the reorganization of the company, which resulted in the dropping of the word "Brand." The reorganization took place March 1 and has put the company on a substantial basis. Recent developments have been promising, according to Sales Manager Joe T. McGrew. The Kansas City, Kaw Valley & Western Railway, an electric road, has been practically completed to Bonner Springs and will give the Bonner Portland Cement Co. an additional outlet for its product. Shipping will in future be done both by the Atchison, Topeka & Santa Fe and the Union Pacific. The latter has handled the company's business exclusively in the past. The competition, as cement manufacturers have discovered, is not at all a bad thing for them. The Bonner Springs plant has followed the example of a good many other manufacturers throughout the country, and now is burning slack only under its boilers, requiring no outside draft. The company has resumed shipping to the dikes, where extensive engineering work is under way.

Asking for lower rates, the St. Joseph, (Mo.), Reinforced Cement Co. and the Ziegler Reinforced Cement Pipe Co., of Joplin, Mo., recently filed complaints with the Missouri state public utilities commission at Jefferson City. All of the main line railroads in the state are made defendants. The Western classification on shipments of cement is almost prohibitive between all points in Missouri, according to the complaint. The rates particularly named in the protest apply to carload lots of a minimum weight of 36,000 pounds. The commission was asked to establish more equitable tariffs. The railroads were given until May 10 to respond.

The exchange of sacks, which was established recently by Kansas City cement companies, will be dropped about June 1, according to present plans. It was believed that one sack was as good as another, and that the sorting on jobs required too much time. It was agreed between several companies that they would pick up the first sacks which were found, waiving claim to their own. This plan, it is said, has not proved satisfactory, and will be discontinued after the date named. Some sacks are said to be inferior to others in grade. Some new method of handling the old sack-collecting problem will perforce be adopted after June 1.

Lehigh Buys Another Plant.

The Lehigh Portland Cement Co. has purchased the plant of the Inland Portland Cement Co. at Metaline Falls, Wash., for a consideration of over \$1,000,000, and substantial enlargements will be made at once. The two companies have been very closely allied in the past, as many stockholders held stock in both companies. This gives the Lehigh company a total of 14 plants, with a capacity of 36,000 barrels of cement daily, extending from the Atlantic to the Pacific oceans. The

company is seriously considering the establishment of mills in Montana, Washington and California. The management of the Metaline Falls plant and the sales department will remain in Spokane. The officers of the Inland company are: F. A. Blackwood, president; E. M. Young, vice-president; A. F. Walter, treasurer, and Dan R. Brown, secretary.

The Lehigh company officers are: Col. H. C. T. Trexler, president; George Armod, E. M. Young, and A. Y. Gowen, vice-presidents; A. F. Walter, treasurer; George G. Sykes, secretary, and Dan R. Brown, district manager. Mr. Brown will continue to head the Spokane office in the Old National building.

The Lehigh company has three mills at Armod, Pa.; three at Newcastle, Pa.; two at West Cobley, Pa.; two at Mitchell, Ind., and one each at Fogelsville, Pa.; Mason City, Iowa; Metaline Falls, Wash., and Wellston, Ohio.

New Cement Works for India

[Consul Henry D. Baker, Bombay.]

The Government of the Punjab, an important Province of northwestern India, has entered into a 10-year agreement with the Kashmir Iron Mines & Power Syndicate (Ltd.), of London, for the manufacture and sale by it to the local government of Portland and other cements, limes, and plasters. The syndicate is bound to erect a factory at or near Dandot, a small town in the Punjab, for the manufacture of cement. The Government of the Punjab has undertaken to buy from the syndicate during the tenure of the agreement all the cements and limes, except unslaked white lime, which it may require for all Government works and works carried out by Government on behalf of municipalities and local bodies. The contract fixes the maximum prices which are to be paid for articles purchased from the syndicate. The rates prescribed are considerably below the prices at present paid by the local government, but the precaution has been taken to provide that if at any time the prices exceed the fair market rates they are to be reduced accordingly. The local government has also agreed to grant to the syndicate the exclusive right during the period of the agreement to extract marl, shales, clays, loams, lime, and sandstones or other rocks from all land belonging to the local government in the Dandot Plateau. It has further stipulated that it will refrain during the currency of the agreement from selling, leasing, or allotting any Government land and from granting any concession throughout the Punjab to any other persons for the purpose of manufacturing Portland cement.

It is understood that the syndicate which has obtained this important concession from the Punjab Government will organize a new company to be called the Punjab Cement Co., to be capitalized at about \$1,500,000 for the purpose of carrying out its agreement with the Punjab Government. The organization of a new company is understood to be under the present direction of a firm in London.

The Capital, an Indian financial paper published at Calcutta, in discussing the proposed operations, mentions that the estimated demand in the Punjab for Portland cement is 20,600 tons annually and might be doubled or quadrupled with lower prices than are now obtainable. It is said that the Punjab Government canal works consumes an immense quantity of cement, as well as other Government departments and railways, also that construction work at the new capital of Delhi will create a demand for the cement to be manufactured here.

New Cement Plant in New Zealand.

Representatives of the Dominion Portland Cement Co., Limited, Wellington, New Zealand, have been investigating the latest improvements in cement machinery and methods of manufacturing Portland cement in the United States and Europe

for the past year, with the view of incorporating the most advanced methods and machinery in their new plant.

After thoroughly investigating various types of pulverizer machines installed in cement plants in the United States and in Europe, they have decided to equip the coal grinding, raw grinding and clinker grinding departments of their new plant with Fuller-Lehigh pulverizer mills, manufactured by the Lehigh Car, Wheel & Axle Works, Catasauqua, Pa.

The plant now under construction will have a capacity of about 2,000 barrels per day. Pulverized coal will be used in the dryers and also in the kilns. Raw material will consist of limestone and cement rock. There will be complete installations of 42-inch Fuller-Lehigh pulverizer mills in the coal grinding and raw grinding departments, and Fuller Drednaught mills in the clinker grinding department. All the Fuller mills in the plant will be driven by means of alternating current vertical type motors.

With this installation of Fuller-Lehigh pulverizer mills in the various pulverizing departments of the plant they will be enabled to take the balls, after they have become worn undersize in the Fuller Drednaught mills, and after turning these balls to the proper size, they can be used in the 42-inch Fuller mills installed in the coal grinding and raw grinding departments, thus saving the initial cost of the balls used in these departments and also the freight on this material from the United States to New Zealand.

SUPERIOR COMPANY ADDING NEW EQUIPMENT.

Loading cement at the Superior Portland Cement Co.'s plant at Concrete, Wash., has been simplified and cheapened considerably by the new belt sack conveyor recently completed by W. R. Davies, representative of the Bates sacking machine company. Four men have been cut from the loading crew by the new installation, which has in addition decreased materially the physical stress incident to the old method of loading cars. More work can be done in less time, with less men and less exertion on the part of those employed.

The trucking of cement is done away with entirely under the new system except from the door of the box car to points inside the car. The pulling of a lever releases from the filling machine the loaded sack, which falls upon the conveyor belt and is carried by it directly into the car.

The big clinker derrick recently erected by the Superior Portland Cement Co. has been in operation for several days now and is giving general satisfaction.

The big clam shell bucket takes hot clinker away from the elevator discharge and carries cold clinker to the hopper over the clinker dryer. A saving of labor and an increase in efficiency has been effected by the new installation.

SEEKS RATE ADJUSTMENT.

The Riverside Portland Cement Co., of Cresmore, Cal., is seeking a reduction of rates into Los Angeles from \$1.50 to 70 cents a ton, in order to place it in the same position in reference to the southern that the northern concerns occupy in relation to San Francisco. The railroads concerned, viz., the Southern Pacific, Salt Lake and Santa Fe lines, are contesting the readjustment on the grounds that the rate from San Francisco northward are water compelled tariffs. The Golden State and the California Portland cement companies, both of southern California, have intervened so as to be included in the proposed rate reduction. There are approximately 2,000,000 barrels manufactured annually in southern California, of which 10 per cent is shipped outside the state, while about 4,000,000 barrels are made in the central portion of the state, with 40 per cent going to export trade.

CONCRETE

New York State Water Storage Project Is Done.

Reservoir and Dam in Upper Mohawk River Impounds Supply from Watershed of 137 Miles.

One of the reservoirs for the Rome level, about five miles north of Rome, N. Y., impounding the waters of the upper Mohawk river, in a basin in which the hamlet of Delta was formerly situated, is completed.

The dam at this reservoir contains about 90,000 cubic yards of masonry; it is 100 feet long, with 300 feet of spillway near the center. Its maximum height is 100 feet above rock, while the overfall



FIDELITY BUILDING, CEDAR RAPIDS, IOWA.

from crest to pool is about 70 feet, the water in the pool being at least 10 feet deep to act as a cushion to break the fall.

The reservoir has an area at crest level of four and one-half square miles, a maximum depth of 70 feet, an average depth of 23 feet and a capacity of 2,750,000,000 cubic feet, getting its supply from a watershed of 137 square miles.

The other new reservoir is formed by a dam across West Canada creek near the village of Hinckley. This dam is 3,700 feet long, mainly an earthen structure with a concrete core wall. At the creek channel there are gate chambers and a spillway 400 feet long. The masonry contents of this dam are 110,020 cubic yards, while the embankment amounts to 611,200 cubic yards.

Eighty-two feet is the maximum height of masonry above rock. The overfall at the spillway is 61 feet. The area of the reservoir at crest level is 4.46 square miles; its maximum depth 75 feet and average depth 28 feet; its capacity is 3,445,000,000 cubic feet, drawn from a watershed of 372 square miles.

TO USE AJELLO PATENTS.

The Building Improvement Co., New York, N. Y., a corporation recently organized, with \$500,000 capital, has contracted with Gaetano Ajello for his patents on reinforced concrete floor construction. The main feature of the invention is an inexpensive

device that forms an integral part of the construction, and guarantees the necessary protection of the tension bars against fire by keeping them at the desired height above the bottom of the construction. R. McWilliams, the general manager and treasurer of the company, stated that the improvement will be at once adopted in the construction of a number of government buildings and schools throughout the country. Mr. Ajello is an architect, having designed during the past few years various buildings, among which are a number of the largest apartment houses along Riverside drive, Broadway and other sections of the city.

LARGE REINFORCED CONCRETE STORE BUILDING.

Another recent addition to Cedar Rapids' fire-proof structures is the Fidelity building, owned by the Fidelity Realty Co., of Cedar Rapids, the basement and five floors of which are occupied by the Killian company for a department store. The building is 120 feet by 140 feet, of reinforced concrete,

and was designed by R. R. Mayberry, architect, Cedar Rapids. The Geo. Grant Construction Co., St. Paul, Minn., was the general contractor, and Medusa Portland cement, manufactured by the Sandusky Portland Cement Co., Sandusky, O., was used exclusively in its construction, requiring 6,000 barrels, which was furnished by the W. G. Haskell Co. This is one of the largest, if not the largest department store, in Iowa.

The Concrete Stone Co., Ida Grove, Iowa, has put its plant in operation, M. C. Pruyn having purchased the interests of J. W. Reed. The concern manufactures building blocks.

The Tishomingo Concrete Tie Co., Tishomingo, Miss., has been incorporated with a capital stock of \$200,000 by A. E. Robertson, J. T. Whitener, M. W. Cozart and others. The concern will manufacture concrete ties and other material.

R. B. Frizzell, proprietor of the Monroe (La.) Brick and Builders' Supply Co., and Thos. Creighton, manager of the Louisiana Sand and Gravel Co., have combined forces for the erecting of concrete silos. The Polk system has been selected. They have joined with Traveler's Rest Stock Farm for the erection of a demonstration silo. Mr. Frizzell will furnish the cement, Mr. Creighton the sand and gravel, and Traveler's Rest the labor. Steel forms have been ordered.

Protection of Concrete During Hot Weather.

It is not at all uncommon to hear prominent engineers say that concrete placed during periods of extreme hot weather is in general weaker than that placed in winter, says the Contractor, if the materials are heated and the surface protected after placing. If it could be forcibly impressed on the minds of inspectors and contractors that protection of concrete surfaces from the direct rays of the sun during hot days is just as important as protection against cold in winter, this probably would not be true. There seems to be an erroneous idea prevalent among construction men that concrete should harden as rapidly as possible. They believe that concrete dries out in hardening similar to the action of lime mortar and therefore they provide no protection while the concrete is hardening. This state of affairs is no doubt due to the passing of many masons and helpers from their original field into the concrete field. Some of these so-called practical men will not be converted from this erroneous view and a vigorous campaign should be started against such ideas.

The very name "hydraulic" as applied to cements conveys the idea that water is required in the process of hardening. Exposed surfaces of fresh concrete should be protected from the direct hot rays of the sun by boards, building paper, or tarpaulins until final set has taken place; after this it is important that the concrete be kept moist for a period of a week or more after placing. If not kept moist and protected, there is danger of the water which is required for the process of setting and hardening becoming evaporated and the concrete "dried out" before the cement has set. Concrete that has prematurely set or dried out is never as strong as if kept moist while setting, and many times ultimate failure is laid to poor cement or aggregate when in reality the cause was lack of water while hardening.

The statement that the strength of concrete increases with age does not hold good if sufficient water is not supplied throughout the first stages of the hardening process. If the moisture is withdrawn from the concrete the increase in strength is arrested; and even if water is applied later it will do no good toward increasing the strength.

When concrete is unprotected and hardens rapidly, the tendency toward contraction is greatly aggravated and the outer surface is very likely to become "crazed" or covered with "hair cracks" and rendered otherwise unsightly. If concrete dries rapidly the color will be much lighter than if kept damp and allowed to harden slowly.

After an exposed concrete surface has received its final set, it should be covered with burlap (not cement sacks, they are too valuable) or wet sand spread over the surface to a depth of about one inch and kept wet by sprinkling. Where surfaces are not exposed but the concrete section is thin, the forms are likely to be very light, and if exposed to the sun will dry out quickly and absorb moisture from the concrete next to the forms. For this reason it is important to see that such forms are thoroughly soaked daily for a period of a week or more. Impress upon the contractor, inspector and workman that water is an essential element in the proper curing of concrete and better concrete will result.

Morledge & Morledge, Ponca City, Okla., have secured the site and are preparing plans for establishing a factory for manufacturing interlocking cement staves for silos.

Concrete Building & Construction Co., of South Norwalk, Conn., has been incorporated; to do concrete work, etc. Capital stock, \$25,000. Incorporators: Herman and Harry Maring, of Darien, Conn., and M. Wm. Rossi, of Stamford.

LIME

Method of Slacking Lime

BY E. W. LAZELL, PH.D., C. E., PHILADELPHIA, PA.

Two kilos of lime reduced to about three-quarter inch lumps should be placed in a deep pan and covered with water, sufficient water being used so as to produce a thick paste. When the violent action is over, the pan is covered (the pan being provided with a tight-fitting cover) and allowed to stand at room temperature for 24 hours. If enough water has evaporated during slacking, so that the lime dries out, more water should be added; the added water to have a temperature of 100 degrees C. The amount of water added should be weighed; the pan, lime and paste resulting after 24 hours should also be weighed.

The contents of the pan, after having stood 24 hours, is screened through a 20-mesh sieve in order to determine the residue, breaking up any soft particles with the fingers. If it is necessary to wash the residue, the washing should be caught in a separate receptacle in order not to dilute the lime paste too much. The character of the residue is noted.

Too much water should not be used, as it may drown the lime, some limes being more susceptible to drowning than others. The object of covering the pan after violent slacking is ended is to conserve the heat. It is a well-known fact that the hard burnt particles of lime break down under this treatment and contribute to the quality and quantity of paste. It might be well to jacket the pan with felt to further conserve the heat. This covering and jacketing of the pan corresponds to storing the lime paste in a large mass in a bed, and in this way follows the best practice. Covering the pan also protects the lime paste from the action of the carbon dioxide of the atmosphere.

It is possible by this method to determine, with reasonable accuracy, the volume of the paste produced by a given weight of lime. A little practice soon determines the correct amount of water to be used in slacking.

Some experiments are under way in our laboratory, in order to determine the consistency of the paste, that a means may be arrived at for determining a normal consistency.

The above method has been used by the writer for a number of years and has served to determine the quantity of the lime sufficiently well for all practical purposes. The results obtained are recorded on the following blank, which I trust will be self-explanatory:

- | | |
|---|--------------------|
| Lab. No. | Date Received..... |
| Material submitted by.... | |
| Date tested..... | |
| Slacking: | |
| 1. Weight of pan + cover..... | |
| 2. Weight of pan + cover—Lump Lime..... | |
| 3. Weight of Lump Lime used (2-1)..... | |
| 4. Weight of water used: Volume..... | |
| 5. Time elapsed before slacking begins..... | |
| 6. Time elapsed when violent slacking ends.... | |
| 7. Weight after 24 hours..... | |
| 8. Weight of paste (7-1)..... | |
| 9. Weight of water + paste (7-2)..... | |
| 10. Per cent of water required to produce paste (9/3) | |
| 11. Volume of paste..... | |
| 12. Weight of residue on 20-mesh sieve dry..... | |
| 13. Per cent of residue on 20-mesh sieve (12/3) .. | |
| 14. Character of residue..... | |

15. Character of paste.....
Soundness Test: Neat pats ($\frac{1}{2}$ Portland cement, $\frac{1}{2}$ lime paste).

Tensile Tests: One part lime, 4 parts Standard Sand.

Date made, 7 day. Date due, 28 day.

Average:

Chemical Analysis:

Lump Lime.	Residue on 20-mesh sieve.
Si O ₂	
R ₂ O ₃	
Ca O	
Mg O	
So ₂	

Loss:

Conclusions:

The paste after having been passed through a 20-mesh sieve is used for making up tensile and soundness tests.

It has been my practice for some years to make all tensile tests on briquette made up of one part of lime to four parts of sand, the amount of lime paste used being calculated to quick lime. The reason for this is that one to three mortars contain too much paste to harden well.

Soundness pats are made up by using equal parts of paste and cement by weight. These are allowed to harden for 24 hours and then boiled in the regular manner, care being taken to use a cement which is known to be sound.

LIME MOVEMENT TRANQUIL.

Henry M. Camp, manager of the Lime Service Bureau at Washington, D. C., writes as follows:

"With due consideration being given to the general business depression throughout the entire Eastern and Southern territories, the present demand for lime products is about all that could be expected under the conditions. In very few sections is the demand for agricultural lime products reported below normal at the present time. That the demand for building and chemical lime is below the average spring demand is the general report received at the Bureau. Extensive reductions in construction work are reported through a number of agencies and the output of many of the chemical industries is stated to be much less than a year ago.

"Congress will shortly have before it for consideration the Administration Trust Bill, which from discussion around the Capital will consume a great deal of time in debate. The bill will probably pass the House in quick time, but is believed it will stay in the Senate for some time before ready for a final vote. There are a good many ideas about trust legislation and the future condition of business depends greatly upon what kind of a law is enacted. The administration knows this well and its efforts naturally will be to put over a bill that will contribute to prosperous business conditions."

The Arkansas Lime Company of Ruddels, Ark., filed an amendment to its constitution a few days ago, increasing their authorized capital stock to \$100,000.

The Bonner Marble and Lime Co., St. Joe, Mo., recently established a branch office at Little Rock, Ark. The Bonner company recently completed a

\$50,000 plant for its marble quarry at St. Joe and also extensive lime kilns.

J. Howe Stevens died very suddenly at his home at Roselawn Terrace, Tyrone, Pa., on March 31st, of spinal meningitis. Mr. Stevens, who was 35 years old, was superintendent of the American Lime and Stone Co.

The big Druecker lime kilns at Druecker station, four miles north of Port Washington, Wis., which have been idle for some time, are to be again placed in commission. Wm. J. Druecker, who is principal owner and local manager, has been receiving machinery by the car-load and is exceedingly busy supervising its installation. The first big job will be to clear the stone quarry of the accumulation of water and the big pumps will be kept at the task until the water has been all pumped out. Then work on the getting out of stone for lime kilns will be begun.

The York Valley Lime Co., York, Pa., recently installed a stone crushing plant with a capacity of 500 tons a day. The concern manufactures flame burnt chemical lime and also fluxing and crushed stone, the demand for the latter being exceptionally good during the past year. The York Valley company has been manufacturing lime for the past ten years, burning it in kilns by the flame process. The stone and coal are not mixed in burning and only the flame and heat comes in contact with the stone. The officers of the company are: W. F. Myers, president and treasurer; E. Myers, vice president, and R. L. Myers, secretary.

The United Lime & Stone Co., Harrisburg, Pa., has retained Richard K. Meade, chemical, mechanical and industrial engineer, 202 N. Calvert street, Baltimore, Md., to prepare plans and specifications for their new hydrating plant at East Lemoine, Pa. This will be modern in every way and when completed will be one of the finest hydrated lime plants in Pennsylvania. It will have a capacity of 40 tons of hydrate per day. One of the features of the plant will be six large curing bins each designed to hold 24 hours' run of hydrate. L. R. Spong, general manager of the United Lime & Stone Co., is a great believer in perfect hydration and these bins are designed to give the lime plenty of time to absorb all of the water necessary for this. Mr. Spong reports the business of his company now more than they can accommodate and hence the new plant.

The new hydrated lime plant of the Dutchess County Lime Co., Dover Plains, N. Y., is now nearing completion. Work was begun upon this last fall but owing to the severe weather in January, February and March in this section the plant could not be completed at as early a date as was contemplated. The plant will have an initial capacity of 75 tons of hydrated lime per day and is so arranged that this output can be doubled without making enlargements of the building necessary. The plant is also provided with a pulverizing mill for the manufacture of pulverized limestone for agricultural purposes, etc. The output will be sold through the Palmer Lime & Cement Co., New York City. Richard K. Meade, Chemical, Mechanical and Industrial Engineer, 202 N. Calvert Street, Baltimore, Md., is the engineer who prepared the plans and specifications for the new plant. Ambrose Allen, Dover Plains, N. Y., is the superintendent of this plant and the construction is being done under his supervision.

CLAY PRODUCTS

Louisville Clay News.

Louisville, Ky., May 5.—Conditions are far better in the brick business than at any time since the early part of last fall, and prospects are for a steady business for the manufacturers from now on. A large proportion of the contracts let in Louisville so far this spring have been for concrete and cement work, but the brick men are getting their full share of the business and the prospects are unusually good. Collections are holding up well also. A goodly proportion of the new school house work will be of brick, which should keep the manufacturers of common and face brick pretty busy.

The Southern Brick & Tile Co., according to Manager T. Bishop, is handling a good volume of business. Both common and face brick are moving and two new jobs in the Highlands are both worth while. One is for the new three-story residence of C. C. Eblen, in which there will be used 50,000 face bricks and 12,000 common brick. The Southern company is also furnishing about 70,000 face brick for a new plant for the Laib Company, and about 20,000 hard brick for the same building. Mr. Bishop has had some fairly good drain tile contracts of late for farm drainage. These are put in under contract by the company.

J. H. Bell, of the Louisville Fire Brick Co., has returned from a trip to Cleveland, where he landed a large order for fire brick which will be shipped from the plant at Grahn, Ky. This company is going after business at some distance from Louisville.

The Louisville Brick Co. has reopened its plant and is now turning out about 40,000 brick a day. Business is very fair and general prospects look quite good, according to Manager Joe Nevin. A good stock of brick is on hand, and most of the work now being done is on stock, but things are bound to hum as soon as the weather settles.

A. B. Hillenbrand, Jr., general manager of the East End Brick Co., reports that things are beginning to start again. The plant has been running for about five weeks, since starting on the spring run. It is now turning out about 35,000 brick a day. The company has made arrangements for the renewal of the lease on its property to January 1, 1915.

The Lebanon Brick & Tile Co., Lebanon, Ky., has been incorporated with \$5,000 capital stock. The incorporators are T. M. Estes, Robert L. Goodin and Lee Goodin.

The Irvine Brick and Concrete Block Co., Irvine, Ky., is operating its plant to capacity at present. Prospects are good for a big business this summer.

Kansas City Clay News.

Kansas City, Mo., May 4.—The brick situation in Kansas City is in fair condition, enough building being in actual course of construction to keep stocks of local manufacturers at a low ebb. Basing their calculations on the volume of building permits taken out, however, local brick manufacturers and representatives of foreign plants are just a trifle disappointed with immediate business, but they firmly believe the current year will be an exceptionally good one. Many builders are holding off until a good wheat crop is assured. Prospects for this development are splendid, judging from reliable reports, and most of the permits taken out will be used in the near future, it is believed. Enough construction will be of brick to make the year an

extremely profitable one for that section of the supply trade.

The latest brick plant proposed in Kansas City is that on the property formerly owned by the Liberal Stone & Brick Co., and now in possession of Frank B. Lambert, of Anderson, Ind. Mr. Lambert recently purchased the promising land from the defunct company. The property is located near Sugar Creek, about 10 miles from Kansas City. Mr. Lambert expects to remove the outer crust of limestone, which will be crushed and sold to contractors before the shale for the brick plant is reached. Kilns are to be erected and a big brick manufacturing outfit installed.

The plant of the Vale Brick Co., located at Vale, Mo., a few miles from Kansas City, on the Rock Island railway, will shortly be put into commission. George C. Stephens, president of the company, is manager of the Bryant Supply Co., a well-known Kansas City material concern. Construction work on the Vale plant has been under way all winter and the finishing touches are now being put on. The plant will have an initial capacity of about 60,000 common. This will be increased as the rough edges are smoothed off, and 100,000 brick will be made by mid-summer.

Enough power house work is in evidence, not only in Kansas City but in all other sections of the country, to keep the W. S. Dickey Clay Manufacturing Co. shipping fire brick steadily. While construction of this type is brisk in the Southwest, the United States Government is a consumer of importance at present, due to developments on the Panama canal. The Dickey Clay Co. is shipping a good percentage of its output of fire brick to Panama, via New Orleans. The company has suspended operations in its clay sewer pipe manufacturing plant at Mexico City because of the trouble in Mexico.

A reorganization of the National Terra Cotta Co. will take place in the near future. Harvey Stiver, a well-known local contractor, is reported to have purchased an interest in the company, which was formed about a year ago by A. F. Brooker and V. H. Primm.

A good deal of vertical fiber brick paving will be laid by the city during the coming year, according to present indications. This class of paving has proved entirely satisfactory and is likely to be a favorite with the present administration, which was re-elected in April. The first contract of this kind was awarded to J. E. Welch on April 28 at \$1.75 a square yard. The contract calls for 8,727 yards at this price.

The Lawrence (Kan.) Vitriified Brick & Tile Co. has affiliated with the Western Paving Brick Manufacturers' Association, giving that organization a total of eight members. This includes practically all of the paving brick companies of importance in this section.

E. B. Ingall, treasurer of the Cleveland Vitriified Brick Co., Cleveland, Okla., died last month.

Carey Brick Co., Chicago, with a capital of \$50,000, has been incorporated to conduct a brick, tile and paving business. Edward F. Walton, M. DeBeer and John LeFleur are the incorporators.

The Ludowici Celadon Tile Co. has broken ground at East Palestine, Ohio, for an addition to its plant. Charles E. Doll, a well-known pottery manufacturer of East Liverpool, Ohio, has become identified with the project.

The Alton Brick Co., of Alton, Ill., has increased its capital stock from \$250,000 to \$300,000.

The American Cement Tile Company will start work at once on a large addition to its plant at Wampum, Pa.

The Kenilworth Tile Co. will build two more kilns and make other extensions to its plant at Newell, W. Va., at once.

The Marietta Shale Brick Co., Marietta, Ohio, manufacturers and dealers in brick, has recently been incorporated by E. Flanders for \$15,000.

The Brown Brick Co. has been formed at Dallas with a capital stock of \$5,000. G. C. Brown, E. D. Brown and Octavia Brown are the incorporators.

The plant of the Mexico Fire Brick Co., of Gallup, New Mexico, is to be greatly enlarged, and the capital stock raised from \$50,000 to \$100,000.

The Altoona Brick Co. has been organized by C. W. Moore, Enos M. Jones, J. Foster Meek and John S. Seeds, of that city, to manufacture brick.

The Cole Press Brick Co. has been organized at Ferris, Texas, with a capital stock of \$42,000, and will construct a brick plant at that place. J. M. Batchler is one of the incorporators.

The Pee Dee Brick Company, of Norwood, Stanly county, N. C., has been chartered to do a general brick business. W. T. Brasington, T. Colson, J. I. Campbell and J. H. Forbes are the charterers.

The Union Coal and Fire Clay Co., Denison, Ohio, has been organized with a capital of \$10,000 to deal in shale, limestone, coal and mineral properties. Incorporators, George S. McCaw, Robert Maxwell, W. D. R. Evans, C. Alvin O'Donnell and Wm. M. Hill.

The Salina Vitriified Brick Co., Salina, Kan., recently received an order for twenty carloads of brick to be shipped to Concordia. This brick is to be used in the construction of the federal building at Concordia. The Salina brick plant has supplied the brick for practically all of the federal buildings in that territory for some time.

A certificate of incorporation for the Berkeley Brick Co., of which Ernest T. Hand, of Plainfield, N. J., appears as the president has been filed in the county clerk's office at Elizabeth, N. J. The concern will be located at New Providence, N. J., and is capitalized at \$100,000, divided into 1,000 shares valued at \$100 each. The incorporators are: Edwin Taylor and E. E. Dennison, of Elizabeth, and Ernest T. Hand, of Plainfield.

Work will be resumed at once by the Standard Clay Product Co., New Glasgow, N. S., Can., whose plant was recently destroyed by fire. The new factory, which was just completed escaped the fire and the operations of the company were not crippled to any extent. The new plant will employ 170 men and will have an output of 30,000 tons of sewer pipe. The company owns 65 acres of clay and shale lands and the quantity of raw material in sight is over 200,000 tons. The clay and shale are above drainage and are easily obtained.

The Antiquity of Brick

Brick, the venerable and reliable building material—unmistakably the oldest thing made by civilized man, as far as records determine—gives evidence of architecture on earth. It was the earliest substantial building material, and is the latest. Six thousand years of history which embrace the entire known period of human civilization deal with brick. The earliest sunrise of enlightenment on the far-away plains of Babylonia, in the remotest time of which we have no man-made record, revealed towers and walls of burnt brick. Today men are still building of the same material, and they expect their structures to stand as long as some of those in the Eastern countries stood.

Statistics are generally considered pretty dry, but the simple statement that 25,000,000,000 bricks are made annually in the United States can be appreciated and remembered. The full meaning of this enormous number is brought home when it is considered that it is but a single factor in a vast accumulation; that it is added to what we already had; that it increases by that much the country's wealth of brick, for few are destroyed, and every year adds 25,000,000,000 more. That is enough to lay a five-foot sidewalk eight times round the world. The enormous output is not ahead of demand, and this ought to be proof that the brick that came sixty centuries ago, came to stay.

It is worthy of thought that the first important building material invented by man was the most durable thing he ever invented. Some minor improvements may have been made since, but in the main essentials the bricks in the Tower of Babel were as good as those of today. Man reached the limit of possibilities in brick-making—at least in durable qualities—earlier than any history records. He did the same with the bow and arrow, for there was absolutely no improvement in the bow, as far as known, from the days when the archer "drew a bow at a venture" and pierced the armor of Ahab, at Ramoth-Gilead, down to the battle of Crecy. Five thousand years after the bow reached perfection it was laid aside for something better; but not so with brick.

It is a matter of interest, though purely an academic question, how men learned to burn brick. It was probably learned accidentally and experimentally. A brick is no more and no less than an artificial stone in the making of which great heat has played a part. It is a common thing in nature, and doubtless the early brick makers took hints from lava flows. Some lavas are so much like some kinds of brick that a broken piece of one could scarcely be distinguished from a fragment of the other. For instance, the buff-colored feldspathic lava from Mt. Shasta in California looks, when freshly broken, like a piece of buff brick; while the hard, metallic, basaltic lava, so common in some parts of New Mexico, is the picture of the hard, vitrified brick with glassy surfaces. There can be little question, though direct proof is not at hand, that the Babylonian brickmakers who worked wonders in Sargon's kilns at Akkad, 3,800 years B. C., were putting into practice lessons learned in the volcanic regions of the Northern plateaus.

Be that as it may, all historical and archeological evidence points to the valley of the Euphrates river as the region in which the art of brick making was developed, and it had reached practical perfection nearly or quite 6,000 years ago, as is evidenced by the remains buried in mounds of that cradle of civilization. This refers to burned brick, not to sundried cakes of mud. No one knows when these were first made, and the question is of little practical importance, though it might be interesting. Bricks dried by the sun and left unburnt are of little importance in this country. Doubtless such were made long before the art of burning bricks was discovered.

When modern excavators began to dig into the vast mound which is believed to mark the site of the Tower of Babel, they soon came to layers and heaps of bricks which had passed through heat so great as to vitrify the surface. Theologians were the first to suggest a cause for it. They saw in the hard, glassy bricks many pieces of evidence to substantiate the biblical story of the confusion of language and the destruction of divine wrath of the monument erected by sinful man to escape another flood. It was pointed out by biblical scholars that the glassy surfaces of the bricks must have been due to repeated and terrific strokes of lightning—therefore, the Tower of Babel must have been destroyed by lightning as a punishment for wickedness and a warning to ambitious man not to attempt to reach forbidden heights.

Scientists took the same facts and placed quite a different interpretation on them. Instead of a bombardment of lightning sufficiently fierce to half melt the surfaces of the bricks—a thing absolutely impossible under the laws and phenomena of nature—a reasonable and simple explanation was found. The vitrified bricks had been regularly and properly burned in kilns before they were built into the massive foundations of the Tower of Babel. The builders knew enough of masonry and architecture to understand that the best and strongest material must go in the foundation in order to support the great weight above, and there was where they placed the best-burned bricks, and there is where excavators find them after thousands of years. The tower was said to have been 600 feet high, but that figure is doubtful. There is no doubt, however, that the hard bricks excavated were capable of sustaining the enormous weight of such a superstructure.

That is going back a long time, but the information is worth the journey. It throws light on a good many phases of life on economic conditions in that remote period. Modern man is prone to consider himself everything and the ancient man as a barbarian dressed in goatskins, fighting with sharp sticks for spears, living in tents, and subsisting on his flocks, or the chase, with a little assistance from crude agriculture. Excavations of the Chaldean mounds show a different state of affairs. The ability to burn bricks capable of standing the elements 5,000 or 6,000 years is proof of a civilization of high order; because the presence of skilled brick makers implied the presence of competent mechanics of other kinds—architects, smiths, lumbermen, irrigationists and merchants to carry on the trade of an empire. No great industry stands alone. It cannot do it. Unfortunately, time, war and decay have blotted out almost everything pertaining to that ancient civilization—except the most indestructible part of it, the brick. In later times kings stamped their names and engraved their laws on bricks, but the most ancient are plain. Yet those most ancient blocks of burnt clay tell a story filled with human interest.

Take, for example, the matter of burning the millions of bricks which the Babylonians used. Where did the wood come from for firing the kilns? It is a forestless region now with only a few ragged fringes of brush along the nearly dry, meandering water courses; and there is reason to believe that it was practically in the same condition 27 centuries ago, when the only mention of trees was a fringe of willows along the rivers where the captive Hebrews hung their harps on the willows by the rivers of Babylon and wept. Our "weeping willow" came from there. But 2,000 years before that time the brick-kilns were filling the Euphrates valley with their smoke, and doubtless wood was then plentiful.

When Nebuchadnezzar, as it is recorded of him, looked about him and exclaimed with exultation

and pride, "Is not this great Babylon which I have builded?" He was looking upon a vast brick-built city. He was himself one of the world's greatest brick makers. It was doubtless necessary even in the comparatively early time in which he lived to raft wood down the Euphrates and Tigris rivers from the highlands of Ararat and the Anti-taurus mountains to supply his brick burners; but the wood was forthcoming and the brickkilns turned out their products by millions. Nebuchadnezzar was not only a mighty brickmaker, but he was also one of the most elaborate advertisers the world has seen. His name was stamped on every brick that came from his kilns.

"Nebuchadnezzar's furnace" has become a proverb. It is a term used to convey the idea of intense heat. The specific use to which he put it on one occasion made it famous; for there he ordered the three rebellious Hebrews, Meshach, Shadrach, and Abednego, to be burned alive, according to the biblical narrative. As a preparation for the proposed cremation he ordered the furnace to be heated "seven times hotter."

What was Nebuchadnezzar doing with a furnace? This is a fair, practical question. It does not appear that he maintained a furnace for the special purpose of burning unfortunate prisoners; on the contrary, the reading of the narrative shows that he acted on the impulse of the moment when he ordered the prisoners burned, and not deliberately (though tricked into it) as when he ordered Daniel thrown in the lions' den. The plain facts probably were—as far as the narrative is a statement of facts—that the famous furnace was simply a brick-kiln. That, at least, is the reasonable interpretation of it. Doubtless the brickyards were in the suburbs of the city, and the great interest which the king took in brickmaking would cause him to think of a burning kiln the first thing when he wanted to inflict prompt and terrible punishment.

How hot were Nebuchadnezzar's brick-kilns? That is not a foolish question or one wholly incapable of being answered, though it might seem so at first thought. There were, of course, no thermometers then for measuring temperature, but the condition of the bricks themselves is a record of the fierceness of the fire through which they passed. Heat produced the same effect on clay then that it does now; and comparing some of the hardest burned of Nebuchadnezzar's bricks with the product of modern kilns where the degree of heat is known, it is found that some of his kilns were heated from 1,800 to 2,200 degrees Fahr. It is difficult to attain much greater heat than that when wood is the fuel, and it is evident that his brickmakers understood how to build kilns which developed the largest amount of heat from the fuel in use.

It has not been necessary to burn brick on a large scale in the Euphrates and Tigris valleys during the past 2,000 years. In the first place there has been little fuel available for that purpose; in the second place, the region has sunk so low in civilization and has been so greatly devastated by wars that the inhabitants have been discouraged from erecting large buildings. But those who have put up houses have simply dug the necessary bricks out of mounds which mark the sites where ancient cities stood. This has been going on for 2,000 years and plenty remains. The bricks now in the walls of a poor Arab's hut were once part of a palace. Time, war, flood and fire have leveled the ancient edifices, but the bricks remain, and many of them are as serviceable today as they were when first laid up in masonry a thousand years before Abraham crossed the Euphrates on his journey westward to the land of Canaan.

The Cole Press Brick Co. has been organized at Ferris, Ellis county, Tex., with a capital stock of \$42,000. The incorporators are: J. M. Batchler, J. A. Carpenter, J. V. Mutz.

Sand and Gravel

Kansas City Sand and Gravel News.

Kansas City, May 4.—Sand companies in this section appear to be having no difficulty in disposing of their product, and in one or two cases are so confident that double-shift operations shortly will begin. While it is undoubtedly true that much building and road work of all descriptions is being held back until the crop situation crystallizes, many builders are proceeding nevertheless, and local sand companies are therefore finding the situation a profitable one. Building in the Southwest is at high tide and shipping is active, especially to points where freight rates are highly favorable.

The Kansas City Sand Co., formed by W. H. McCaffery and Charles Meierhoffer last November, has opened a second plant on the Kaw river, near the location of the original one. A night shift also is being put to work in both plants and the company will have a daily output of 200 cars for the remainder of the summer. The new sand laundry, recently described in *ROCK PRODUCTS AND BUILDING MATERIALS*, is a feature of the new plant as well as the old. The company's offices in the Gloyd building have shared in the expansion. The temporary quarters on the tenth floor have been abandoned in favor of a big suite on the eleventh floor. The Kansas City Sand Co. is getting 10 cents a yard more for its product than other companies operating in this section. Recent quotations have held sand at 50 cents a square yard, instead of the 40 asked by other companies. No apparent difficulty has been encountered in securing this extra margin, it is stated. The company is delivering to many big jobs around the city, including the new Taylor building, Arcade building, Montgomery Ward warehouse and others.

The plant of the Noel Sand Co., located on the Elk River at Noel, Mo., was sold on April 29 to Charles Werner, of Kansas City, who was a stockholder of the defunct concern. Mr. Werner probably will continue the business as soon as the necessary arrangements for resumption can be made.

The Builders' Sand Co. won out in a damage suit in which it was the defendant. The owners of the old steamboat Uncle Sam alleged that the wrecking of the boat in 1910 was due to improper navigation of a barge owned by the sand company. The boat people will appeal, alleging, following the decision, that newspaper stories unfavorable to them had influenced the jury. They asked damages of \$17,500.

City officials of Junction City, Kan., are importing gravel from Sherman Hill, Wyo., for use on the roads in that section. The thoroughfares near Junction City are heavily traveled and have presented a problem to the officials in charge. It is believed that this will be solved by the use of the Wyoming gravel, which has met all requirements in initial tests.

The Stewart-Peck Sand Co., one of those chiefly affected by the sand royalty law passed in Kansas by the 1913 legislature, will carry the case to the Supreme court of the United States. The law provided for the payment to the state of a royalty on all sand taken from the beds of navigable streams. The Kansas state supreme court recently upheld the validity of the measure. The Stewart-Peck Sand Co. and others which have taken an interest in the case argue that sand in streams is a natural product, on which the state has no right to levy a tax. About \$40,000 has been collected by the state under protest. None of this will be used, however, until the court of last appeal hears the

case and renders a decision. The state supreme court held that the United States gave to the state title to navigable streams and therefore has the right to control them and their products. The Stewart-Peck Sand Co. already has taken the necessary steps to secure an appeal. The case has attracted national interest and will be watched closely by sand digging companies all over the country.

The Alexandria Gravel Co., Alexandria, La., has been incorporated for \$25,000.

Geneva Sand, Gravel & Crushed Stone Co., Geneva, N. Y., has been incorporated; \$12,000; J. B. Sehl, E. A. Griffith, J. W. Mellen.

Hines Kobel Sand Company, of Sallisaw, Kan.; capital stock, \$2,000; incorporators, R. W. Hines, R. Kobel, Luella Hines, of Sallisaw.

The Elk Run Sand & Gravel Co., Waterloo, Iowa, has been incorporated with a capital stock of \$5,000, by C. C. Voelker and Saml. Shilliam.

Amended articles of incorporation, which increase the capital stock of the Greenville Gravel Co. to \$150,000, were filed at Paducah, Ky., recently.

The Columbia Sand and Gravel Co., of Charlotte, N. C., has been incorporated; capital, \$20,000 authorized and \$6,100 subscribed by W. F. McCannless, E. K. Trickey and others.

The Carmichael Gravel Company, Williamsport, Ind., has been incorporated; capital stock, \$50,000; construction; directors, William P. Carmichael, E. G. Sutton and F. P. Steinburg.

The Mananice Sand and Gravel Co., Camden, N. J.; object to dig and excavate and trade in sand and gravel; capital, \$100,000; incorporators, Walter R. Carroll, Martha Lukens, Emma D. Snyder.

The E. T. Slider Co., Louisville, Ky., will improve its sand and gravel plant in the near future. Two 100-horsepower boilers and two engines have been purchased. Crushing equipment will also be installed.

The office of the Crescent Sand & Gravel Co., at 17 Battery place, New York City, will soon be closed, as the entire holdings and property of the company were recently leased to the Goodwin-Gallagher interests.

Merton C. Wilcox, president of the Wilcox Co., Chicago, Ill., sand and gravel dealers, died in Janesville, Wis., a few days ago. He was 50 years old and resided in Forest Glen, where funeral services were held.

John N. Bos Sand Co., Chicago, Ill., has been incorporated; capital stock, \$15,000; buy, sell and deal in sand, gravel, wood, fuel, building material, etc., general contracting business. John N. Bos, John M. Balk and Herman Vander Ploeg.

Haskell Sand & Gravel Co., Haskell, Ark., of which J. G. Opitz is president, will develop 20 acres of sand and gravel land. The company will install a washing and screening equipment, with an output of 10 to 20 cars per day. The capital stock, under the recent incorporation, is \$10,000.

Louisville Sand and Gravel News.

Louisville, Ky., May 5.—A large amount of street construction, sewer building and street railway reconstruction, together with a certain amount of residence operations is keeping the sand and gravel men of Louisville comfortably supplied with orders. These are in sufficient volume to keep most of the companies operating full crews on the river, where the stage of the water now is just right not to handicap operations of this character. Spring has come with a vengeance and what earlier in the season were inquiries are now developing into orders. All along the river the bins of the dealers are full and stocks in all lines and grades are full. Several of the sand and gravel men are looking to get some of the contracts for the supplying of the material that will go into the new Stock Yards Exchange as well as into the new High School and Y. M. C. A. building, while the reconstruction of the Louisville & Portland Canal on which the Henry Bickel Co. is engaged will soon be ready for large quantities of sand and gravel for use in the concrete work that is being done.

The Nugent Sand Co. is finding business up to the mark with a good deal of work, especially on the streets and railway construction and various heavy repair jobs, though the smaller jobs for the most part are taking the bulk of the material that goes out. The Nugent company is working full crews in all operations and all are on full time.

The E. T. Slider Co. is preparing for a busy season, according to Manager Joe Floyd. The crews are working on the river at their full quota and the bins are kept well supplied. The company is pushing the work on the construction of its new digger which it expects to be able to initiate in the next six weeks or two months. The greater part of the material that this company is sending out is in small orders and for the smaller jobs.

At the Ohio River Sand Co. business is reported to be reasonably good, and the company is finding that its new bins on the railroad tracks west of the city place it in advantageous position to handle a large proportion of the orders it gets.

The Chillicothe Sand and Gravel Co., Chillicothe, Ohio, has increased from \$10,000 to \$15,000.

Grand Prairie Gravel Co., Marshall county, Tenn.; capital \$72,000; incorporators, C. C. Houston, W. G. Liggett, P. D. Houston, Jr., C. F. Mintian and R. C. Armstrong.

The San Marcos Gravel Co., San Marcos, Texas, has been organized with a capital stock of \$10,000, and will be one of the largest gravel and sand industries in the state. It will increase its capital within a short time to \$50,000.

It is predicted that a plant for the manufacture of silica brick will be started in West Ottawa, Ill., very soon, by H. J. Miller and H. H. Kirkpatrick, of Texas. The concern will be known as the Texas Sand Co., and will manufacture 10,000 silica brick per day. A committee representing the Ottawa Development Association has been appointed to take charge of drawing up a contract and report at the next meeting of the organization. In accepting the offer of the company, the association tenders to the new concern 20 acres of their land lying west of the Seiberling switch and north of Ottawa avenue. The company asked for no financial aid, and claim that it has sufficient financial backing.

Pittsburgh Sand and Gravel News.

Pittsburgh, Pa., May 5.—Sand companies are doing just a fair business. The river concerns would be busy if the industrial concerns were more active but at present retrenchment is so much the order of the day that few improvements are being planned. The railroads are buying next to nothing and are not likely to do so until the rate decision is handed down. It is generally believed here that if the railroads are granted their increase in rates business will pick up at once, but there are many big concerns which do not take this view of the situation.

The Ohio River Sand Co., which has its shipping headquarters at Ambridge, 20 miles down the Ohio river, reports business pretty quiet. Industrial demand is light. The company is working its diggers day turn only at present.

Big Run Sand and Gravel Co. is a new concern at New Castle, Pa., which has just applied for a Pennsylvania charter. The members are William M., B. A. and Howard Andrew, Fred Tod, W. G. Uher and E. E. Swartsweiler, of New Castle.

Pennsylvania Glass Sand Co., with headquarters in the Commonwealth building, has its several plants running and is doing a fair business. The total, however, is hardly above that of last spring. Some glass factories which it supplies are shutting down for the season, a few of them earlier than usual.

The Winfield Sand and Mineral Co. is very busy at its plant in Butler county, Pa. It has had the best trade in glass sand of any year in its history. This concern has a very hard sand and is increasing its business rapidly with the glass concerns. It is at present doing a very nice trade also in building sand.

Work at the pit of the Northern Gravel Co., Muscatine, Iowa, was started recently, when the first part of the frame of the large automatic gravel handling device was erected. The frame for the building was built while lying on the ground and then erected in sections. It will probably be the first part of May before the work of handling the gravel is started, because the buildings will not be completed before that time.

The buildings of the Northern Gravel Co. at South Muscatine, Iowa, have been completed and the company is now installing machinery. It is thought that the electrical line which is now under construction from the power house to the gravel pit will be completed by the time the machinery is installed. The small steamer which will be used on the lake for dredging purposes is now practically completed but the machinery for it has not yet arrived. The lake which has been formed by the removal of gravel now has an average depth of twenty-two feet and will be made larger and deeper during the coming season.

The Tioga Gravel Co. is contemplating the construction of a line from its pits near Tioga, La., to Pinesville, across the Red river, from Alexandria, where trunk line connection would be made. The proposed road would be about nine miles long. Over it would be hauled gravel for ballasting various railroads in the state. I. W. Troxel, a civil engineer of St. Louis, Mo., is making the survey for the proposed line. The big, new Dull washing plant of the Tioga Gravel Co. is nearing completion. It is now 80 feet high and is to be built 10 feet higher. Some of the machinery has arrived. The pipe line is being laid from Beaver creek to the washing plant. This plant is one of the largest in the South. I. L. Thomas is contemplating the purchase of another steam shovel and locomotive, which will be needed when the plant is completed, as they have two engines busy all the time hauling gravel.

P. J. Harrigan and Charles Elmore, of Peoria,

Ill., have formed a company for the purpose of taking sand and gravel from the bed of the Illinois river to supply the local demand for these building materials. The sand and gravel will be pumped from the bed of the river, loaded on to a barge and towed by tug to the foot of Market street and then conveyed by wagon to the customer.

GRAVEL COMPANY TO IMPROVE PLANT.

Organization of the South Bend (Ind.) Gravel Co. has been effected and incorporation articles have been filed with the county recorder. C. F. Hunt, W. S. Mitchell and W. S. Potter, all of Lafayette, Ind., are directors, and \$30,000 will be expended for the improvement of a plant five miles south of South Bend, adjoining the Rupel pit.

Elevators will be erected and railway tracks will be constructed to be used for shipping purposes. Shovels and sifting machines will also be added and all steps taken to improve the loading facilities so as to present the gravel at a minimum cost.

Gravel will be taken from a 60-acre farm and it is believed there is a sufficient amount on hand to last for a number of years. The pit is located adjoining the C., I. & S. tracks. Between South Bend and Kankakee, Ill., there are twenty-five cross railroads, giving excellent shipping facilities.

The gravel will be used largely for road building. Roofing companies have contracted to secure the finer pebbles for roofing paper. It will also be used for plastering as well as other purposes. Work will probably begin at once and the concern will employ a large force of men. Mr. Hunt, president of the company, will move to South Bend in the near future.

BUYS BIG GRAVEL PLANT.

The property and plant of the Boise (Idaho) Sand & Gravel Supply Co., of Boise, was sold by the corporation to Captain Gilbert Donaldson a few days ago. The purchase price was not given, but the property is said to have cost about \$60,000.

The machinery which is now on the ground will be remodeled and made up-to-date in every respect, according to the plans of Captain Donaldson. The present method of taking gravel from the river bed by means of a scoop shovel will be changed. An aerial tramway will be constructed across the river and the gravel will be taken out by means of an orange peel dipper and carried to the towers where it will be graded.

The plant occupies three acres. The company employed 12 men on the ground and about 20 teamsters. Captain Donaldson expects to be ready to operate by May 15.

A new and up-to-date gravel and crushing plant has been erected by the Ohio Ballast Co., Columbus, Ohio, on the N. & W. railroad, sixteen miles east of Cincinnati. The plant is constructed of reinforced concrete. The sand and gravel is received by a reinforced concrete hopper from an elevated railroad track and is fed through a reciprocating feeder to a belt conveyor. The material passes over a grate bar screen, which rejects the larger stones, which are then sent to the gyrating crusher, the remainder being delivered to a revolving washer screen. An auxiliary crusher receives the rejects and the smaller material goes to revolving stone and sand screens over the main storage bins, where it is graded into the proper sizes. Webster troughing idlers and Gates and Symons crushers are used.

Operations have been resumed at the plant of the Trenton Sand Co., which is located at Yardville, N. J., after a period of several months' idleness caused by a slump in building circles during the winter. The firm has several large contracts on hand which will keep the place running at full ca-

capacity for some time. One of the contracts now being filled is with the Public Service Corporation for several hundred car loads of sand to be furnished for the plant they now have in course of construction in Burlington. At the annual meeting of the sand company James Melrose was elected president; K. A. White, treasurer, and Frank T. Malloy, secretary. The concern recently expended a large amount of money for machinery which has been installed in their plant and the pits are now completely equipped for the furnishing of building and moulding sand, filler and gravel.

The Jeffrey Manufacturing Co., Columbus, Ohio, has just issued Bulletin No. 129 on the subject of "Arcwall Coal Cutters for Over Cutting System of Mining." This coal cutter is of the locomotive turret type and affords not only an advanced step in the mining of coal but is really an innovation in the mining of bituminous coal in this country. It is adapted for all veins from two feet up. The cutter is self-propelled and is said to cut from 100 to 200 per cent more coal than the unmounted machine. Its economy in use consists of the fact that shifting on the floor is eliminated, less powder is required in shooting and no slack shoveler is needed; the danger from blown out shots is also minimized.

The Arkansas City Sand Co., of Arkansas City, Kans., of which Jas. H. Hamilton is the principal owner and the president, is installing the latest and most up-to-date machinery to be had for a business of this kind. They are putting into one of their plants a barge, upon which there is a large sand pump, operated by a 50-horsepower electric motor, which will pump the sand from the river directly into the cars. Such an outfit will be capable of loading from 12 to 18 cars of sand per day. They have two loading plants, one on the Frisco railroad, just west of the city, and one on the Santa Fe, just south of the city. This new outfit will be placed in the Santa Fe plant.

Road laws which have been on the statute books of various states for more than one hundred years will probably be repealed as a result of the movement which has been inaugurated by the American Highway Association in conjunction with the American Bar Association. The committees appointed by the two associations have had prepared, through the co-operation of the United States Office of Public Roads, a complete literal compilation of the road laws of all the states, as well as the laws relating to indebtedness, the use of convict labor, and various other subjects which have a bearing upon the management of the public roads. An index chart for these various laws is now being prepared and as soon as it is completed the committees will determine upon the lines along which revision will be sought.

The joint committee representing the organizations participating in the American Road Congress has decided that the 1914 congress shall be held at Atlanta, Ga., during the week of November 9. The chamber of commerce of Georgia, the various commercial bodies of Atlanta, the Association of County Commissioners of Georgia, and all road organizations in the South are working actively for the success of the congress. The committee based its selection upon the fact that the South is this year entitled to the congress in logical order, and upon the further fact that nowhere in the entire country is there a greater interest being manifested in the road movement than in the South. Last year the Southern states expended more than \$45,000,000 on public roads; undoubtedly during the next two years a number of state highway departments will be established in the South, resulting in largely increased state expenditures supplementing the constantly growing volume of county bond issues.

With the Quarries

Quarry Products—The Relation of Price to Supply.

"What are we getting for the rock in our quarries?" is a question which the crusher operator is just beginning to realize is one that he will have to take into consideration. Have you thought of the thousands of years employed by nature for the perfection of the crystallization of lime rock and the hardening of other types of stone? This means that the rock which is being blasted and removed from your quarry pit can never be replaced. Taking into consideration the number of quarry operations, each one of them moving all the way from 300 tons up to 12,000 tons a day, the aggregate of the holes cut into the rock formation of the earth's crust makes a very big blank space to contemplate.

The crushed rock industry as a commercial business has only been developed during the past 12 years, and up to the present time those who figure costs and expense accounts seldom, if ever, put in anything for the actual commodity itself as nature has made it. In those cases where such an item is carried it merely amounts to a division of the original price of the land upon a farming basis—sometimes \$40 or \$50 per acre. In fact, we do not know of a single case where the value is more than \$150 per acre.

We have a deadly parallel in the great lumber industry, which was truly and originally more fortunately situated than is the quarry industry. Had the early lumbermen conserved the original forests by intelligent reforestation the deplorable conditions of the present time could never have appeared, for the forests of 50 years ago would now be replaced by new growth. The modern attempts at reforestation will be the sole source of supply of timber a generation from now.

There are men living and in business who can recall the time when timber land was considered to be inexhaustible, and it is not many years since it was the general opinion that the forests of the hither side of the Mississippi river would supply the markets of the United States indefinitely. But just see what a few years have done in that industry. Much the major part of the supply of the markets comes from shipping points west of the Mississippi and it is almost impossible to consider that reforestation will accomplish a great deal in the space of a generation or two.

The quarryman has an entirely different vista to look upon. His business is a young one with a few ideas, most of them very crude, that have been formed concerning its basic stability. The rock that comes out of the quarries today can never be replaced. We have found that the limit of the depth to which a quarry can be economically operated with present equipment is really insignificant, and the distance that the quarry rock can be brought from the bottom of the quarry pit to the crusher incline is also limited within the circle of definite economy. The cost of moving a crusher from one side of the quarry operation to another side of the same quarry hole so as to ascertain the distance and minimize the cost of handling the rock after it is blasted out amounts practically to putting up a new plant, so that the life of the profitable operation of a quarry plant can be limited by a small circle radiating from the plant and usually when this is developed it becomes a semi-circle for the reason that the plant is nearly always established at one side of the quarry to be operated.

While to all intents and purposes at the present

time there is a bountiful supply of rock material in the earth's crust available for the operations of the crusher man for generations to come, yet if we profit by experience we know that available quarries will be limited by contiguous property holders' objections to blasting and other matters of a similar kind which will cut the available natural resources at least in half. That is to say, many big cities are built on real estate that would make splendid quarries and these are just as much a part of the natural resources for quarry operations as those which are available, and that places which are used by cities and towns will never be available for quarry operations.

The pith of the matter is this, that the quarryman is definitely figuring the depth to which he can economically quarry his pit. He can take his total acreage now for a basis and figure out his yardage. Every one of those yards as it lays in the quarry will represent about two tons of rock, possibly a little more, and by the use of a little arithmetic he can see just how much his total sales are going to be in volume until he has exhausted that quarry. When that quarry is exhausted to the depth decided on, a new basis of cost will have to be established if he goes deeper down and takes out lower floors, so the calculation of the yardage or tonnage, as the case may be, that the quarry opening contains should be figured definitely at whatever is the right price for such a thing and charge steadily into the cost so as to get the value of the material on the books that comes out of the quarry.

In view of many of the quotations that have been made, that are being made, and that the buyers of the product insist on having made for them these remarks may seem entirely out of order, but the time will come, and it is not far distant, when the quarryman will awake to the necessity of charging his customers for the resources of the earth which he is paying for, and which he is producing into a commercial commodity. Those operators who have never taken any such thing into consideration may hoot at the idea of charging any more than the price of farming land for the natural product that goes to their crusher, but there are many men in the crushing business today who are not working the same quarry that they started in with 10 or 15 years ago. These men of experience will tell you reasonably that such and such a quarry hole has been exhausted and all the good rock that is in it, taken out, or that it is too deep to work economically, or that they have struck a water vein which fills the pit so fast that the cost of pumping makes the operation unprofitable. All of these things have to be taken into consideration, and we note that quarry properties are undervalued and that the material that goes to the crusher has little or no value put upon it by the producer who finds it quite difficult as a rule to get enough money to pay for the running expense and the ordinary cost of the operating end.

This thing of using up the natural resources of a continent has been demonstrated in the timber business to be utterly folly. In the rock business it is even more so, for rock is of more actual value than is timber, for the reason that its indestructible value is greater, its permanency is higher and its replacement is impossible.

In throwing out these hints with regard to the charging of a reasonable sum for the natural products of the earth that goes to the crusher we real-

ize that we are a little in advance of the times, perhaps, but we cordially invite our readers to discuss the matter and will appreciate a letter from the best thinkers on this all important topic of our industry.

The Lincoln Stone Co., Scranton, Pa., has been incorporated with a capital stock of \$50,000.

The Ellsworth Stone Co., Iowa Falls, Ia., has been organized with a capital stock of \$10,000.

The France Slag Co., Toledo, Ohio, has increased its capital stock from \$50,000 to \$250,000.

The Leona Quarry at Oakland, Cal., has bought a lot of machinery, and is laying a considerable amount of new track.

The Pfeiffer Stone Co., of Pfeiffer, Ark., has contracted to furnish 50,000 tons of rock to the Arkansas Fertilizer Co. at Little Rock. Three cars of stone was shipped to them today.

Ideal Crushed Stone Quarry, Joliet, Ill., has been incorporated; capital stock, \$15,000; conduct and carry on stone quarry business. John H. Savage, John W. Downey and Marie L. Downey.

The Columbia Contract Company of Portland, Ore., which is supplying the rock for the North Jetty at Portland, has now arranged to supply the rock at the rate of 4000 tons per day, or double the former rate.

The Trap Rock Co., of Minneapolis, Minn., has leased the quarry of the Minnesota Flint Rock Co. at Redstone, and the former company expects to operate the quarry this season on a large scale and will employ not less than 40 men.

The quarry and mill of the defunct Victoria Limestone Company, which failed and went into the hands of a receiver some eight or nine months ago, has been sold at Bowling Green, Ky., near where it is located, to John F. Tegart, of New Albany, Ind., at public auction. Mr. Tegart will make his home in Bowling Green and operate the plant himself.

The new plant of the R. B. Tyler Co., of Louisville, Ky., situated at Ducker Station, 18 miles from the city on the Southern railway, will be in operation in the next few days. The old plant was destroyed by fire some time ago and it was necessary to re-equip it. The company has orders waiting for the stone to be taken out and operations will be pushed.

What is said to be the largest and most up-to-date rock-crushing plant in southwest Texas has been completed at New Braunfels. The crushed rock which is turned out at this plant is being used on Houston Street, on the Denver Boulevard, and also on a number of buildings in this city, and is also being used for street work and construction purposes in Houston. The plant is now being operated at full capacity under the personal supervision of the president of the company, Harry Landa, who has taken an especial interest in the enterprise. Electricity is being used for operating the plant, and the latest machinery has been installed, which is being operated by skilled mechanics, making it possible to handle large contracts.

Jaw Crushers of Large Capacities

Small jaw crushers have always been very popular with contractors and road makers, and are constantly being used on work which requires an output of from 5 to 18 tons of crushed stone per hour. The value of crushers of this type is thoroughly appreciated, but the general public, and even a large number of contractors, do not fully understand the real value of the large jaw crusher. There are many quarrymen who need crushers that can handle from 250 to 1,200 tons per day, and very large operators who require even a greater output.

To meet this demand the engineering department of The Good Roads Machinery Co., with factories at Kennett Square, Pa., Fort Wayne, Ind., and Marathon, N. Y., have made repeated successful experiments with the jaw crusher and have constructed many large crushing plants which are being operated successfully in Pennsylvania and other Eastern states. Their most recent achievement has been the construction of the No. 20 Champion crusher which has a capacity of about 1,200 tons per day. This crusher has a maximum opening of 24 inches x 50 inches and is designed so that it can be fed by a steam shovel. For the past three years a No. 20 crusher has had continuous service in a large quarry at Cornog, Pa. The stone it is crushing is considerably harder than the average trap rock. A large number of these crushers are now being built and at the present time two are being erected at Lenni, Pa.

One of the most notable improvements on the No. 20 Champion is the multiple jaw feature which has been perfected after many years of experiment. The Champion, which is a pioneer in the multiple jaw arrangement, embodies in its construction devices which completely overcome all difficulties that have formerly stood in the way of the culmination of this idea. This multiple jaw feature insures the ease of operation which is so characteristic of Champion machinery.

The power is imparted through an elliptical main cam shaft which gives two movements of the swinging jaws to every revolution of the fly wheels, thus reducing friction on account of the slow speed of the shaft, and insuring cool bearings.

The most essential element in a large crusher is strength, for the continued strain of crushing hard rock is tremendous. The Champion crusher is made of rolled steel plate with castings of high carbon steel. The stationary jaw is tongued and grooved to the side plates. The tongue is in the casting and the groove in the side plate, so that the large bolts do not take any of the shearing strain, but merely serve to hold the plates in contact with one another. The shafts and arbors are also of high grade open hearth steel, and the dies are made of manganese steel.

Crushers of this type are of great service to large operators, for they economize in the handling of rock. These large crushers are able to take the rock immediately after blasting and thus save all expense of sledging.

The Storb plant, which is located at Pottstown, Pa., on the Colebrook branch of the Reading Railroad, and operated by The Storb Crushed Stone Co., of the same address, is attracting the attention of large quarrymen in the East. The stone is blue trap rock of a very hard variety. When crushed it weighs 2,380 pounds to the cubic yard. The breast of the rock is 75 feet high, and as they are cutting into a mountain of 300 feet in height the breast of the stone is constantly increasing. The trap rock is of strata formation of about 10 feet in thickness.

Excellent railroad facilities enable the Storb company to handle a tremendous quantity of stone. Their capacity is about 1,000 tons per day. This rock is marketed throughout Eastern Pennsylvania. In producing this quantity of rock about 75 men are employed to do the excavating and blasting

and to feed the crusher. The plant is No. 20 Champion and was installed by The Good Roads Machinery Co., Kennett Square, Pa. Detailed information regarding large jaw crushers can be obtained by addressing The Good Roads Machinery Company at either Kennett Square, Pa., Fort Wayne, Ind., or Marathon, N. Y.

The Pompton Crushed Stone company expects to have its plant at Riverside, N. J., in operation within the next two weeks.

The Liberal Stone and Brick Company, Anderson, Ind., incorporated; directors, R. F. Lambert, John T. Sears and Arthur H. Jones.

The Malvern Stone Quarry, Towson, Md., operated by J. F. Parks, has resumed operations after being closed down during the winter months.

The Davis stone quarry east of Wymore, Neb., has commenced operations with a force of 22 men, which will be added to as the season advances.

John F. Tegart, of New Albany, Ind., has purchased the plant and quarry of the Victoria Limestone Co., Bowling Green, Ky., for \$17,500.

A. J. Thompson Stone Company, Ellettsville, Ind., incorporated; \$200,000; to operate stone mills, etc.; A. J. Thompson, Ellettsville, Ind.; H. K. Thompson, W. C. Reeves.



PLANT OF THE STORB CRUSHED STONE CO., POTTS-TOWN, PA.

The France Stone Co., Toledo, Ohio, has increased its capital from \$500,000 to \$600,000, this being necessary to handle the rapidly increasing output of the several plants owned by the company.

Arthur H. Jones, of Anderson, Ind., has organized the Liberal Stone and Coal Co. of Kansas City, Mo. The capital stock of the company, which will be incorporated in a few days, will be \$500,000. The officers are: President, B. F. Lambert, Anderson; vice-president, A. H. Jones, Anderson; treasurer, John P. Sears, Indianapolis; general manager, Stephen Sedwick, Kansas City.

The Industrial Engineer and Machinery Company, Limited, of Montreal, have just secured a contract for the complete installation of a large rock crushing plant, which is to be erected at Beauport, Que., for the Quebec Brick Company, Limited. The contract is being executed jointly by the Industrial Company and the Traylor Engineering and Manufacturing Company, of Allentown, Pa., the latter furnishing all the machinery. The plant is to be one of the largest and most modern in Canada, and will be electrically operated throughout. The quarry equipment, consisting of steam shovel, dump cars, locomotives and drills, is also being furnished by the Industrial Company. The shovel will be 3½-yard size, Marion-Osgood make, and especially adapted for rock work.

Good Roads Allies to Meet.

National Body at Indianapolis Plans to Link Cities of Over 20,000.

As we go to press delegates are arriving at Indianapolis, Ind., for the third annual convention of the National Old Trails Road Association, which will open May 7. Sessions of the Indiana Good Roads Association and the good roads department of the Daughters of the American Revolution will be held in connection with the Old Trails Association, and it is expected 1,500 delegates will attend. Gov. Ralston will welcome the delegates.

The object of the Old Trails Association is to connect every state capital and every city having a population of 20,000 or more with rock or macadam highways. The old national road, which passes through Indiana, is the chief interest of the D. A. R. and the Indiana association believes the convention may influence the state to improve this highway. Judge J. M. Lowe of Kansas City, will preside.

Pittsburgh Quarry News.

Pittsburgh, Pa., May 5.—Contracts are being awarded right along for Allegheny county road work, in which crushed stone is figuring to a large extent. Outside road operations have not come forward as yet to the contract stage. Prices on road stone are being cut badly and in many cases are no higher than last year. Stone quarries have nearly all resumed work in both the Lawrence-Butler county districts and in Ohio territory. There is no lack of labor this spring as the railroads are laying off thousands of laborers. Shipments are coming forward in good shape and stone men are inclined to believe that general business will be much better than last year.

The Clydesdale Stone Co., with offices in the Ohio building, is working on the contract for furnishing stone for the Pennsylvania railroad bridge for the Kiskiminetas river at West Ellwood Junction, Pa. This will require 4,000 yards of stone. The Clydesdale plants at West Ellwood Junction and Ellwood City, Pa., are running at nearly full capacity.

The Consolidated Stone and Mining Co. reports no advance in prices but some gain in inquiry. Its plants are shipping steadily from Cheroton, on the B. & O. railroad, and Ellwood Junction, on the Pennsylvania railroad.

County commissioners of Allegheny county let contract to the Pittsburgh Amiesite Co. for furnishing 16,900 tons of asphaltic concrete, at prices ranging from \$8.10 to \$8.75 per ton. The contracts aggregate \$135,000. They also let to the Donald McNeil Co. the contract for 10,500 tons of asphaltic concrete at prices ranging from \$8.64 to \$8.89 per ton; to the Clydesdale Co. for 2,000 tons of ballast at \$1.25 per ton; to D. H. Crisman for 1,300 tons of Kentucky rock ballast, and the Crescent Portland Cement Co., for 2,000 barrels of Portland cement at \$1.19 to \$1.48 per barrel.

The Gruendler Patent Crusher and Pulverizer Co., of St. Louis, Mo., established in 1884, has issued their catalog "B" entitled "Grinding Machinery." This is a twenty-four-page publication containing illustrations of the various types of grinders and pulverizing machinery manufactured by the company with illustrations of parts and of the machines in actual operation. There are also printed a number of testimonial letters which show in a conclusive way the satisfaction that the Gruendler machines have given to their users. The Gruendler patent crushers and pulverizers will grind to the desired fineness in one operation. A list is given of more than 60 materials in the grinding of which its machines have been used. Full information and literature may be obtained by addressing the company.

Indiana Quarries Busy.

F. W. Connell, recently appointed secretary of the Indiana Crushed Stone Association, is a very busy person at the present time and is displaying a depth of energy in behalf of the crushed stone interests of his state which seems to be without bottom. He advises us that the quarries represented in the organization are working steadily at present, which entails considerable activity in the association's headquarters.

"The aim of the Indiana Crushed Stone Association," said Mr. Connell, "is to protect the crushed stone interests by assisting engineers and other public officials in drawing up standard specifications for water bound macadam roadways, as well as other types of construction, in which crushed stone is used, thus assuring the taxpayers of the proper and most economical use of crushed stone."

"The word 'macadam' is abused more than any other word pertaining to any particular type of road construction. There are many miles of pikes in the state of Indiana in which a small amount of crushed stone is used and which, from my personal knowledge, in many cases there were simply a few inches of crushed stone spread over the road, without even the assistance of a roller, that are known to the majority of taxpayers as water bound macadam roadways. We are putting forth every effort to stop this abuse by endeavoring to have standard specifications adopted for water bound macadam roadways and see that said specifications are carried out by the contractors."

"The counties in Indiana that have adopted standard specifications for macadam construction are still building macadam roads, because they are the cheapest, and most suitable type of construction for country highways. This not only includes the first cost, but the maintenance, which is very low compared to the various kinds of road construction."

Pittsburgh Quarry News.

Pittsburgh, Pa., May 5.—The stone concerns in Pennsylvania are not so well off as last year owing to the fact that railroad building operations to be undertaken by the state highway commission will be on a much smaller scale. The reason is that the \$50,000,000 bond issue did not pass last year for this purpose. Some good contracts have lately been awarded in Allegheny and surrounding counties. Some bridge work is being let. In fact there is more business along this line than in railroad building.

D. K. Morris, in the Empire building, regards the prospects for a pretty fair stone business especially in road contracts as good. Requisitions are a little slow in coming forward, but he is fairly busy nevertheless.

The Craig Stone Co. and the Ellwood Stone Co. are doing a fair business at their plants in Beaver county. Prices are being cut some, they report, and competition is keen so that it is a live man every time who gets the business.

CARBON CO. HOLDS MEETING.

The annual meeting of the Carbon Limestone Co. was held at the offices of the organization in the Stambaugh building, Youngstown, Ohio, a few days ago. The board of directors chosen is composed of Mrs. Edith Andrew Logan, Robert Bentley, Mary S. Logan, James A. Campbell and John A. Logan. The officers of the board are Robert Bentley, president; John A. Logan, vice president, and Miss Mary S. Logan, secretary and treasurer.

Reports received at the meeting showed that during the past year \$120,000 had been expended in improving the property by the installation of a high-grade crushing plant, electrically operated, along with accessory equipment. Power is secured

from the Mahoning Valley Traction Co.'s station at Lowellville.

The Carbon Limestone Co. has 1,100 acres from which to operate and a capacity of producing 1,500,000 tons of crushed stone each year. The property is about two and a half miles east of Lowellville in the Hillsville, Pa., district.

BUYS McLAUGHLIN-MATEER QUARRY.

The stock of the McLaughlin-Mateer company, which operates a stone quarry at Kankakee, Ill., has been sold to A. E. Cook.

It is understood that Walter C. McLaughlin of the McLaughlin-Mateer Co., will remain as manager of the concern, while his father, Frank McLaughlin, and Frank C. Mateer will retire.

The quarry has now been in operation for many years and has reached a depth that will soon be unprofitable to work. It is planned to move the machinery and quarrying apparatus to the Cook strip when the present workings are exhausted. There are 14 or more acres in the Cook strip, which will furnish material for many years to come.

The rapid development of the cement industry has made an almost unlimited market for crushed stone products and Mr. Cook believes in getting into a live game.

MARYLAND WINS RATE REDUCTION.

The Interstate Commerce Commission recently handed down its decision, in the case of the State of Maryland et al. v. Pennsylvania Railroad Co. et al. regarding (1) the proposed increased rates for the transportation of interstate shipments of crushed stone from Port Deposit, Md., and producing points in other states to consuming points in Maryland and Delaware, to the effect that the claims were not justified by the evidence of record; (2) the recently increased rates on the same commodity from and to points similarly situated were found to be unreasonable to the extent that they exceed the rates previously in effect.

TENNESSEE LIMESTONE FOR ROADS.

Asheville, N. C., May 5.—The use of Tennessee limestone as a top dressing on county roads is contemplated by the members of the Buncombe County Board of Commissioners, the question of experimenting with this material being discussed at some length at a meeting of the Board held here yesterday. Experience has shown that sand-clay is an unsatisfactory dressing for macadam roads and the commissioners will be compelled to adopt some other substance. It appears that limestone offers the best remedy for wear and tear of mountain roads.

The Peru Stone & Cement Co., manufacturers of high-grade crushed stone, at East Peru, Iowa, write us, stating that during the past winter they have built an entirely new stone crushing plant and are now equipped with the most modern and up-to-date machinery possible to procure. They are operating one No. 5 and two No. 3 crushers, and contemplate adding a No. 7½ machine this fall, provision having already been made for this when power and other equipment was installed. They further state that the crushed stone business in that particular locality looks very good for the current year.

A plant to utilize the stone deposit 10 miles north-east of Attica, Ind., will probably be built during the coming summer. The company was organized a few weeks ago and has been incorporated as the Danville Refractories Company, with a capital stock of \$300,000. The plant to be built at Danville, Ill., and will require about 100 men to operate in the beginning. All of the flint will be transported to Danville from Flint, this being a railroad haul of about 35 miles. The old crushing plant at Flint is to be re-

habilitated and it is planned to handle the material much as it was when the flint beds were being worked before, a big steam shovel being used to dig up the material and load it onto cars, which will haul it to the crusher. All of the stone will be crushed so that it will pass a two-inch screen and then loaded into coal cars and hauled, train load at a time, to Danville, where it will be ground to powder, mixed into a clay and made into brick.

EHRSAM CO. SUPPLIES SALT PLANT EQUIPMENT.

The Independent Salt Co., of Kanopolis, Kan., has about completed its new plant and is expected to be shipping salt within a few weeks. The plant will be the most up-to-date, as well as the largest, rock salt producer in the country, having a capacity of about 1,000 tons daily. The shaft is about 800 feet deep. Two self-dumping cages deliver the salt to the head house. The tippie is about 80 feet above the ground, and the gravity system is employed for working the salt through the crushers and sifters.

The run-of-mine is dumped over grizzly bars; the lumps fall into the coarse crusher and what passes through the bars are delivered to the sifters through feeders. From the sifters the graded salt is spouted to the shipping bins. The tailings are elevated to the fine crushers and the salt from the coarse crushers to the sifters. The bins can be spouted directly to the car.

The power connections, elevating and conveying machinery, also the separating machinery, was manufactured and furnished by the J. B. Ehsam & Sons Mfg. Co., of Enterprise, Kan.

The separators or "shakers" are of heavy steel construction, with eccentric rockers and roller bearings, each with four screens approximately 30 inches by 13 feet. Feeders control the flow to the sifter.

The transmission is extra heavy throughout. The elevator is self contained with steel dustproof casings.

The lump "drag" or conveyor is of heavy two-strand steel roller chain in self-contained steel troughs.

Two two-roll coarse crushers are used and two fine crushers of the same type, also an attrition mill.

ISSUES "SAFETY FIRST" SERVICE BOOK FOR MOTORISTS.

In line with their policy of supplying motorists service, The B. F. Goodrich Co. have recently issued a booklet, "Rules of the Road." The purpose is to help further the Safety First Movement by putting valuable hints in such concrete shape that they can be quickly mastered by the man behind the wheel.

Both new and experienced drivers will appreciate the information contained in "Rules of the Road." It tells in clear, concise manner many regulations which new drivers must usually acquire from costly and embarrassing experience. It gives rules governing street traffic, such as passing, turning, stopping and starting. Also data on precedence on right of way, speed laws, respective rights and duties of drivers and pedestrians, lights, etc.

Then follow chapters on the "Care of Tires," "How to Make Repairs," "How to Secure the Goodrich Touring Service," "Road Marking Service," "Good Roads," and "How to Secure the Benefits From Goodrich Service Stations."

Mathews Slate Co. of Hampton, New York, has been incorporated; general quarrying, deal in slate, stone, etc., capital, \$199,000. Incorporators: W. C. R. Allen, R. M. Davis, Poultney, Vt.; P. Hanlan, Hampton.

GYPSUM PRODUCTS

I. C. C. Decides Plaster Rates Excessive.

The Interstate Commerce Commission on April 6 considered and decided the case brought by the Pacific Coast Gypsum Co. et al. versus the Oregon-Washington Railroad, in which the complainants protested that an unjust discrimination was being practiced based on the existence of a higher scale of rates and a more restricted mixing privilege on lime, plaster, and plaster products from Seattle and Tacoma, Wash., to points in Oregon, eastern Washington, and Idaho on the lines of the Oregon-

The Interstate Plaster Company is being organized at Detroit with a capital stock of \$25,000.

Indiana Art Marble and Plastering Company, Indianapolis, Ind., has been incorporated; capital stock, \$10,000, plaster and frescoing; directors, J. G. Anderson, Fred Wilhelm, Felix DeVere.

The Pacific Coast Gypsum Co. is now operating its mines at Skagway, Alaska. The company's steamer J. B. Stetson arrived at Tacoma, Wash., early in the month with 625 tons of gypsum.

Cement Plaster Co., also a 120-foot steel conveyor box with conveyor for their Grand Rapids mill; a No. 1 classifier for a mining plant in West Virginia, and also a mixing outfit for Moline, Ill. A lot of general repairs have just been completed for the Jumbo Plaster & Cement Co., of Sigurd, Utah. Orders for small repairs and new parts have been coming in steadily, indicating continued work in cement and plaster mill lines.



RESIDENCE OF AUGUST F. MARTZAHN, DAVENPORT, IOWA.

Washington Railroad & Navigation Co., Camas Prairie Railroad, and Oregon Short Line Railroad, than from Lime and Gypsum, Oreg., to Portland, Oreg., and other consuming points in the northwest. The rates from Seattle and Tacoma were also alleged to be unreasonable in themselves.

Only the carriers stated were made defendants, and their defense was that competition at Puget Sound points and at Portland and the preponderance of the empty-car movement from Huntington, Oreg., westbound, justified the lower basis of rates from Lime and Gypsum.

The Pacific Coast Gypsum Co. is engaged in the manufacture of plaster and plaster products at Tacoma, gypsum rock being brought by water from Alaska. The other complainants are manufacturers of lime, and with one exception their plants are located on San Juan and Orcas Islands, about 75 miles north of Seattle. The plant of the International Lime Company is at Limestone, Wash., a point on the Bellingham & Northern Railway, 32 miles northeast of Bellingham, Wash., the latter being 97 miles north of Seattle.

The commission decided that the adjustment to Portland and points north thereof from the respective points of origin, does not subject complainants to unjust discrimination, or that the rates from Lime and Gypsum to those points, which are made to meet actual and substantial competition, should not be used as the measure for rates eastbound.

It was of opinion, however, that rates from the Puget Sound points to points east of Portland, upon a scale in some cases twice as high as in the reverse direction are not justified and that the defendant, the Oregon-Washington Railroad & Navigation Company, should establish rates from Seattle and Tacoma to Huntington of not to exceed 24 cents on lime and 27 cents on plaster, with rates to intermediate points graded up to those amounts.

The Centerville Gypsum Co., Centerville, Iowa, has made a 15-year contract with the Gypsum Products Co., Barrington, Ill., a suburb of Chicago, for its entire output of raw material, the latter concern agreeing to receive the gypsum daily for 25 days a month. The Centerville Gypsum Co. is now in course of organization, \$25,000 being already subscribed and \$20,000 yet to be secured as working capital and to provide an air shaft. It is stated that the company has an almost unlimited deposit of gypsum, 98 per cent pure, the vein being 12 feet thick. Approximately 90 men will be employed.

Among recent shipments from the shops of the J. B. Ehrsam & Sons Mfg. Co., Enterprise, Kan., were eight 8-foot kettle shells for the Acme Cement Plaster Co., Acme, Texas; eight 42-inch cut gears, with pinions for the Acme plant of the American

Adding Cement Plaster to Concrete.

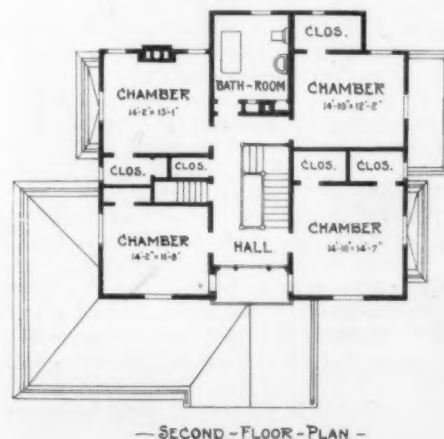
The Aberthaw Construction Co., Boston, Mass., recommend the following method of attaching plaster to concrete: "Make the concrete as porous as possible by omitting sand from the mix and by not spading the concrete next to the forms. Where plaster is required underneath a floor or roof, if the forms are sprinkled with 1/2-inch stone before the concrete is placed, a rough surface will be obtained to which plaster will key nicely.

To attach Portland cement plaster to smooth concrete, hack the surface with a point, brush the surface thoroughly to get the dust out, wash it, and in every case make sure that the under concrete is thoroughly wet before the plaster is applied. Otherwise the water will be soaked out of the plaster and the plaster will not adhere. Wash the surface with grout just ahead of the plaster and make sure that the plaster is applied before the grout has time to set.

A BOOK FOR HOMEBUILDERS.

The solving of the many problems which arise during the planning and construction of a home is a matter for each individual owner. The wide variation in structural materials as well as possibilities in design, give the owner, the architect and the contractor a wide field for thought.

The Northwestern Expanded Metal Co., 905 Old Colony building, Chicago, Ill., anticipating some of the questions which would arise, have prepared a neat booklet entitled "Practical Homebuilding." This booklet shows a great variety of plans with photographs of the finished buildings ranging from small garages to expensive residences. It shows in detail the use of the Northwestern products, "Kno-Fur," "Kno-Burn" and Econo Steel Reinforcing. The cuts on this page will give one an idea of the contents of this book, which is sent by the company on receipt of ten cents to cover the expense of postage, etc.



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Faeberhill Mfg. Co. (bag tyers).
Jaite Company, The.
United Wire Tie Co.
Urschel Bates Valve Bag Co.
West Jersey Bag Co., The.

BELTING.

H. W. Caldwell & Co.
Chicago Belting Co.
Dull & Co., R. W.
B. F. Goodrich & Co.
Imperial Belting Co.
Stephens-Adamson Mfg. Co.
Webster Mfg. Company.
Weller Mfg. Co.

BRICK.

Alliance Clay Products Co.
Alliance Brick Co.
Belden Brick Co.
Hocking Valley Clay Co.
Metropolitan Paving Brick Co.

BRICK CLAMPS.

The P. D. Crane Co.

BRICK PAVING.

Alton Brick Co.
Harris Brick Co.
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Hendrick Mfg. Co.
McMyler-Interstate Co.
Owen Bucket Co.
Willis Shaw Mch. Co.

CABLES.

American Steel & Wire Co.
Dull & Co., R. W.
Sauerman Bros.

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Taylor-Wharton Iron & Steel Co.

CEMENT, HYDRAULIC.

Carolina Portland Cement Co.

CEMENT, PORTLAND.

Atlas Portland Cement Co.
Canada Cement Co.
Carolina Portland Cement Co.
Chicago Portland Cement Co.
Coplay Cement Mfg. Co.
Dexter Portland Cement Co.
French, Samuel H. & Co.
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Kansas City Portland Cement Co.
Lehigh Portland Cement Co.
Marquette Cement Mfg. Co.
Northwestern States Portland Cement Co.
Ohio & Western Lime Co.
Peckless Port. Cement Co.
Phoenix Portland Cement Co.
Sandusky Portland Cement Co.
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Security Cement & Lime Co.
Union Sand & Material Co.
Universal Portland Cement Co.
Vulcanite Portland Cement Co.
Whitehall Portland Cement Mfg. Co.
Wolverine Portland Cement Co.
Woodville Lime & Cement Co., The.

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Columbus Chain Co., The.
Jeffrey Mfg. Co.
Taylor-Wharton Iron & Steel Co.

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Clinton Metallic Paint Co.
Macneal, James B., & Co.
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Premier Flooring & Material Co.

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Good Roads Mach. Co., The.
Jeffrey Manufacturing Co.
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McLanahan Stone Machine Co.
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Webster Mfg. Company.
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Grimsley, G. P., Ph. D.
Robt. W. Hunt & Co.
Lewis & Co., W. J.

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McMyler-Interstate Co.

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Bradley Pulverizer Co.
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Howells Mining Drill Co.
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Worrell, S. E.

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Austin Mfg. Co.
Stephens-Adamson Mfg. Co.
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Fuller Engineering Co.
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Improved Equipment Co.
Kirkpatrick, W. C.
Lewis, W. J., & Co.
Meade, R. K.
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PLASTER.

See Gypsum.

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Miscampbell, H.
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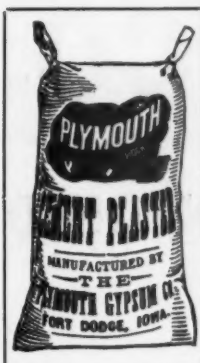
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We have the finest gypsum rock in the country and our plant is equipped with the latest and best machinery, this assures you that you will handle the very best line of plaster—when you represent us. **OUR MOTTO IS QUICK SHIPMENTS.**—We have a daily capacity of 300 tons. **Write us today for prices, etc.**

KELLY PLASTER COMPANY

Sales Office: Sandusky, Ohio

Shipping Point: Castalia, Ohio



PLASTER

WOOD FIBER
PLASTER

Fireproof Partition Blocks
Sackett Plaster Board
Steel Studding

Known as Brands of Quality

WRITE US

PLYMOUTH GYPSUM CO.
FORT DODGE, IOWA

WE WANT YOU

THAT IS, IF YOU'RE A PROGRESSIVE
HUSTLER AND WANT US

We want good, reliable agencies, for our face brick. We manufacture smooth face and rough wire-cuts, both in shale and fire clay. The shale burns quite dark and the fire clay "old gold" or brown. Both the shale and fire clay brick are thoroughly vitrified. Write us for samples, prices, etc.

The Alliance Brick Co.
Alliance, O.



United States Custom House and Postoffice, Omaha, Neb.
KALLOLITE PLASTER USED

Kallolite Cement Plaster

Was used on the Omaha Post
Office, as well as many other

**Government and Public
Buildings.**

Kallolite Cement Plaster is manufactured from the Purest Gypsum Rock found in the United States as shown by last Government Report.

CARDIFF GYPSUM PLASTER CO.

Write for literature.

FT. DODGE, IOWA

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

BRICK—The Old Way of Handling Them is a Nuisance

In tossing brick out of a car many are broken. A wheelbarrow doesn't carry enough bricks to warrant the time it takes to load, wheel it out and dump it.



Use a CLEVELAND BRICK CLAMP

It is the Newest and Quickest Way

Furthermore, in unloading brick it actually saves ONE-THIRD of the time over the old methods. This clamp is adjustable and will carry from FOUR to TWELVE bricks. There's no fuss or bother. Simply place the clamp down on the bricks and lift the handle.

The price? It is so inexpensive ANYONE can afford it. Just send your name on a postal and we'll send a neat catalog and price list.

THE P. D. CRANE COMPANY, 10201 Harvard Avenue, Cleveland, Ohio

THE BELDEN BRICK CO.

Incorporated 1893

Sales Offices:

CANTON, OHIO



FOUR MODERN FACTORIES

producing practically every color and texture of Face Brick put us in position to take care of the dealer to the best possible advantage. It will pay you to have our samples and prices. Write now.

FACTORIES:

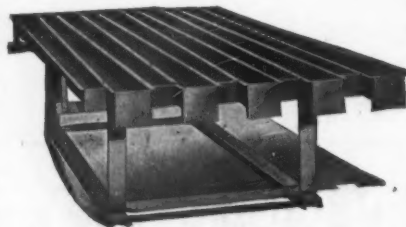
Canton, O.

Somerset, O.

Uhrichsville, O.

Tuscarawas, O.

THERE IS PROFIT FOR YOU In making and selling "D&A" CEMENT FENCE POSTS



"D&A" TEN-MOLD size all-steel outfit

D. & A. POST MOLD CO.

Dealers Wanted

To make "D & A" POSTS you can GUARANTEE and SELL to compete with wood posts 25-30 cents each. "D & A" shape makes Strongest, Lightest and Best Posts with $\frac{1}{3}$ the labor required by other systems. "D & A" MOLDS COSTS LESS.

Six and TEN-MOLD outfits, 30-mold trucks, ANCHOR, BRACE, also Special Molds, many sizes and lengths in stock. The "SHAKING SYSTEM" makes smooth, dense weatherproof posts.

"D&A" CEMENT POSTS used on CATSKILL AQUEDUCT FENCING

N. Y. Board of Water Supply approved "D & A" Posts for other styles specified in contracts on account of the practical and most economical construction of same, being of such shape as will resist an equal strain when applied from any two opposite directions. No weak ways with the "D & A."

AM. RY. ENG. ASS'N Endorse the principals of "D&A" MOLDS and POSTS

18 Am. Rys., Concrete Plants, Lumber and Building Material Dealers in all parts of world use "D & A." Advertising and Circulars furnished dealers for FREE distribution.

Illustrated Catalogue FREE, describes "D & A" Molds and methods of making posts in detail. Post reinforcement, many kinds, \$2.00 cwt. and up. "D & A" Tie wires for all makes of posts. Get PRICES, liberal Discounts now.

P. O. Box 404,

THREE RIVERS, MICH.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

DEALERS! WE MAKE THE SEWER PIPE

OF FIRE CLAY

That won in the test in Louisville, Ky., April 26th, showing
43 per cent greater strength than competitors.

This means your customers will bring you repeat orders.
We co-operate with dealers.

CANNELTON SEWER PIPE CO.,
CANNELTON, IND.

The Evans Clay Mfg. Co.

UHRICHSVILLE, OHIO

Standard Sewer Pipe
Double Strength Pipe Wall Coping
Chimney Tops Building Blocks
Flue Linings Stove Pipe
Thimbles Fire Brick
Drain Tile

AND OTHER FIRECLAY PRODUCTS

TWO BIG PLANTS ∴ 4,500 CARS ANNUAL CAPACITY



PLYMOUTH CLAY PRODUCTS CO.

FORT DODGE, IOWA

**It May Pay You
To Purchase.....**

**Sewer Pipe
Flue Lining
Wall Coping**

and other Clay Products

FROM
The Thompson-Armstrong Co.
Provident Bank Bldg., Cincinnati, Ohio

DEALERS PROFIT SHARING LINE



ALEXANDER MCCLURE SCHOOL, Philadelphia, Pa. *Manufactured with SALT GLAZED BRICK, Shade A-1*
J. H. Cook, Architect, Philadelphia, Pa. *Manufactured by The H. V. F. Co., Nelsonville, Ohio*

Salt Glazed Brick vs. Other Facing Materials.

By using **Salt Glazed Brick** instead of enamel brick, 50% of the cost is saved, a better wall is obtained and one that will not peel off or chip at the slightest rap as does enamel brick. Easier to clean, looks nicer, more permanent.

Salt Glazed Brick is known to be the best facing material on the market, besides being the least expensive for a handsome looking wall.



"Athena" Salt Glazed Brick

We have the best clay for salt glazing.
We employ the best equipment in manufacturing.
We use greater skill in preparation of the clay, drying and burning.

We understand thoroughly the art of salt glazing.
We are progressive and follow progressive methods.

*DEALERS—Write Us For Our
Special Proposition, Also For Our
Large Illustrated Catalog.*

The Hocking Valley Fire Clay Co.
NELSONVILLE, OHIO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



This illustration shows one of four machines used by the Indiana Excavating Co., at Indianapolis, where a mile and a half boulevard is being constructed. The conditions are such that the slack cable-way system alone was adaptable. In investigating equipment for this work, capacity, power, cost of operation and maintenance were considered.

NEGLEY PATENTED EXCAVATORS

PERFORM ALL SLACK CABLE-WAY OPERATIONS EFFICIENTLY AND ECONOMICALLY. INVESTIGATION WILL SATISFY ALL OUR CLAIMS

NOTICE:

Our Excavator is protected by U. S. patents Nos. 1,053,428 and 1,086,304, Canadian patent No. 151,915 and other applications are pending. Infringers will be prosecuted. We request manufacturers and purchasers to respect our rights. We have already been compelled to bring suit against William H. Insley and the Insley Manufacturing Company for infringement of our patents.

INDIANAPOLIS CABLE EXCAVATOR COMPANY

Beauty Avenue and New York Street, INDIANAPOLIS, IND.

LELAND EQUIPMENT COMPANY,

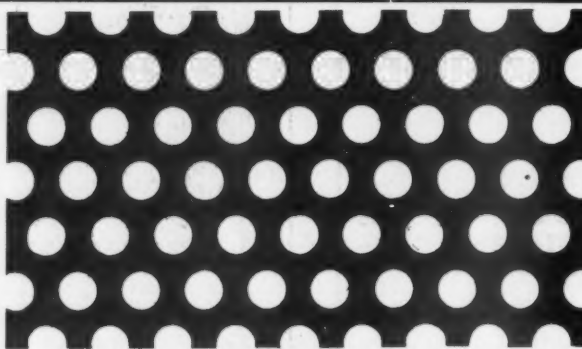
126-128 Pine Street, San Francisco, Calif.
Agents for Arizona, California and Nevada.

PERFORATED METALS

Our Perforated Products have a reputation for accuracy and general high quality, shipments are prompt, and prices the lowest.

Our plant is equipped with modern perforating machinery, and we specialize in this product, elevators and conveyors, and SIMPLEX RIVETLESS CHAIN.

WE SOLICIT YOUR INQUIRIES



CROSS ENGINEERING CO.
CARBONDALE, PA.

SCREENS

For Every Purpose

Revolving Screens

Conical Screens

Shaking Screens

FOR:

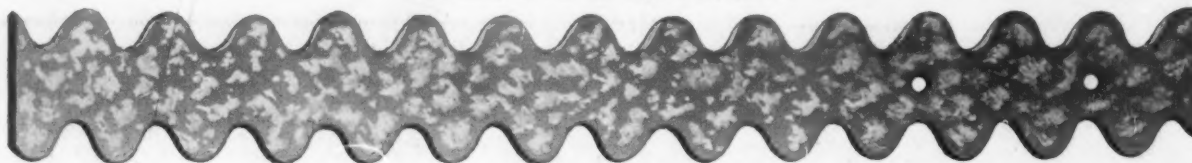
Stone, Gravel, Sand, Cement, Lime, Coal, Coke, Steel Floors and Gratings, Grilles and Ventilators, Fire Escape Platforms, Etc.

SEND FOR ILLUSTRATED CATALOG

The Dealer Who Sells Whalebone Wall Ties

is assured of satisfied customers and repeat orders. There is a big profit for the dealer who sells our goods.

Standard Size, 7 inches long x $\frac{1}{4}$ inches wide



Whalebone Wall Ties

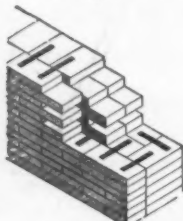
Used for solid brick or veneered walls.

Packed 1000 in a box. We want dealers to sell our wall ties and nailing plugs. Write us for our special proposition.

We shall be pleased to mail you samples.

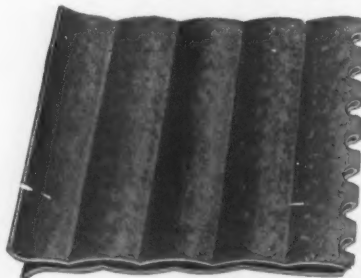
2 $\frac{1}{4}$ inches long x 2 $\frac{1}{4}$ inches wide

Drop us a line, let us know you are interested.

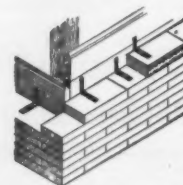


Tie for Solid Wall

We protect the dealer. Write us for our price to you.



Nailing Plug



Tie for Veneered Wall

We create the demand by Advertising in Contractors and other publications.

ALLEGHENY STEEL BAND CO.,

Pittsburg, N. S., Pa.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



BRICK ROADS

ALTON BRICK COMPANY

- : - : -

ALTON, ILLINOIS

Makers of High Quality Brick for
ROADWAYS AND PERMANENT BUILDINGS
 REPRESED AND DUNN WIRE CUT-LUG BLOCK.

"WORK SCENES"

a new publication illustrating the fundamental steps of
 brick pavement construction, may be had for the asking.

**NATIONAL PAVING BRICK
MANUFACTURERS ASSN.**

|| **WILL P. BLAIR, Secretary** **CLEVELAND, OHIO**

F. LAWSON MOORES, President

W. W. CONEY, Sec'y & Treas

Factory:
ZANESVILLE, OHIO

THE HARRIS BRICK COMPANY

Manufacturers of
VITRIFIED SHALE BRICK, HARRIS PAVERS

Office: St. Paul Building
CINCINNATI

THE METROPOLITAN PAVING BRICK COMPANY

Manufacturers of "BEST PAVING BLOCK MADE"
CANTON - - - - - OHIO

**THE THORNTON FIRE BRICK CO.**

Use "Grafton" Shale or Fire Clay Block
 for Permanent Pavements

**CLARKSBURG,
 W. VA.**

ROBERT W. HUNT

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ROBERT W. HUNT & CO. ENGINEERS

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INSPECTION TESTS AND CONSULTATION CEMENT & STRUCTURAL STEEL

INSPECTION OF ALL CONTRACTORS' EQUIPMENT NEW OR 2nd HAND—INSPECTION OF ALL MATERIALS OF CONSTRUCTION

Tests of Paving Brick, Steel & Iron—Chemical Laboratories

ESTABLISHED OFFICES IN

CHICAGO

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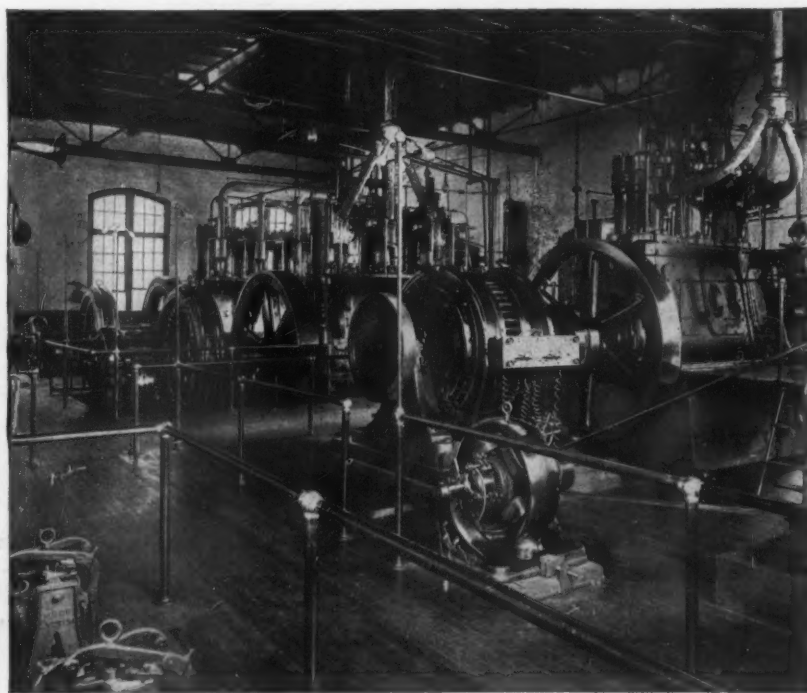
SAN FRANCISCO

**SAMSON CEMENT
 SAMSON PLASTER
 PEARL HYDRATED LIME
 WATERPROOFING MATERIALS
 BUILDERS' SPECIALTIES**

SEWER-PIPE
 HOLLOW TILE
 BUILDING BLOCK
HOUSTON-BROS. CO. PITTSBURG

**ROOFING SLATE
 BLACK BANGOR AND
 SEA GREEN
 GENASCO & NIAGARA
 ASPHALT ROOFINGS
 ALL SLATERS' SUPPLIES**

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



THIS installation started with 2 DIESEL engines of 120 B. H. P. in 1903, added 1 of 225 B. H. P. in 1906, and another of like size in 1911. These engines have been found reliable and a very profitable investment.
☛ DIESEL engines save money.

How much horse-power do you require? The great economies which the DIESEL engine has effected for others can be realized in *your* mill. ☛ Let us furnish you information covering your requirements. Drop us a line.

BUSCH-SULZER BROS.-DIESEL ENGINE CO.

ST. LOUIS

U. S. A.

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Henry Falja and D. B. Butler. Price \$1.20 C
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Myron C. Falk. Price \$2.50 C
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Halbert P. Gillette. Price \$5.00. C
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H. P. Gillette and C. S. Hill. Price \$5.00 C
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H. G. Richey. Price \$1.50. C
- Reinforced Concrete
A. W. Buel and C. S. Hill. Price \$5.00 C
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Richards & North. Price \$1.50. V
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ROCK PRODUCTS

537 S. DEARBORN STREET

CHICAGO

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS



Build Your Walls With Care

They are the most important feature of your home

Discriminate in the selection of the base behind your interior plastering and your outside stucco and you will have walls of beauty and permanence.

Kno-Burn

Expanded Metal Lath

is the logical base for plaster and stucco. It is absolutely dependable.

Plaster cracks when the lath behind it does not grip. Kno-Burn is made with a mesh which the plaster interlocks when applied and grips unfailingly as soon as it has hardened.

Plaster falls when the lath behind it begins to rot. Kno-Burn can't rot. It is a metal lath.

Our new booklet "Practical Home-building" tells you all about walls and a great deal more. It covers of home-building from the selection of a suitable one story house to the finishing touches of construction. It is full of plans, photographs, estimates, comparative prices and building accessories—just the sort of information every home-builder wants.

Send ten cents to cover cost of mailing and ask for booklet 1009.

North Western Expanded Metal Company
Old Colony Building Chicago, U. S. A.



5 Million People are Reading this Full Page Magazine Ad!

How many of them will you make your customers?

No matter where you are located, a great big crowd of your neighbors are being *convinced* by our general magazine advertising for



They are going to insist upon it as the wall base in the new houses they are going to build—and their belief in our product will make it easy for you to turn them into permanent customers by selling them an initial order of what they want.

If you are not handling our line, you are missing an opportunity to profit by this advertising of ours, for every order we sell must go through a dealer and goods that are half sold are quickest to turn over.

Get in touch with us TODAY. Let us quote you prices and tell you more about our product and our plans.

Northwestern Expanded Metal Company
929 Old Colony Building Chicago, U. S. A.

ESTABLISHED 1850

The Largest Lime Plant Individually Owned
in The Central States

Marion Lump Lime in Bulk
Marion Lump Lime in Barrels

Mason's Hydrate Clover Leaf Brand
Finishing Hydrate Star Brand

Agricultural Lime All Kinds

WRITE TO-DAY
QUICK SERVICE

John D. Owens & Son

Owens, Marion County, Ohio

**IF you knew
positively that**

you could free yourself from further bag trouble, and all delays and waste of money, you certainly would take steps toward that end. The Bates System Valve Bagger with valve paper bags for sacking Cement, Lime, Plaster, Alca, Ground Stone, etc., will do the work you want automatically and accurately fill and weigh every sack. 150 tons per day of lime—one machine.

Write for Particulars.

The Urschel-Bates Valve Bag Co.

TOLEDO, OHIO

BRANCH PLANT:

NIAGARA FALLS, ONT., CAN.

Tell 'em you saw it in ROCK PRODUCTS AND BUILDING MATERIALS

Better Merchandising!



Constructing "SACKETT Built Walls"
SACKETT Plaster Board and U. S. G. Wall Plaster

SACKETT Plaster Board is one of the most attractive products a supply merchant can handle.

5 Reasons Why:

1st. SACKETT is easy to sell—and at a profit from two to three times greater than wood lath.

2nd. It gives satisfaction—better interior wall construction for the builder.

3rd. There is no loss—the stock does not deteriorate or get out of date—it always represents a live profitable asset.

4th. SACKETT adds to the volume of business without a corresponding increase in expense. It goes hand in hand with U. S. G. Wall Plaster—on the same job—sold at the same time.

5th. The big SACKETT advantages draw the interest of prospective builders from the high ways and by ways. A prospect for SACKETT is also a prospect for other materials you handle—it's a splendid feeder for new business.

Our advertising and sales co-operation will put your market on a bigger profit paying basis for you. Let us tell you how. Write us today.

United States Gypsum Company

New York Cleveland Chicago Minneapolis Kansas City San Francisco



You Can Crush A-Ton-a-Minute With A Champion

We have been supplying townships and contractors with small jaw crushers for thirty years—let us call your attention to one of our giants.



No. 20 CHAMPION CRUSHER

Can be used as a primary crusher or for regular work.
Capacity—500 to 1000 tons per day.

Big Business Requires Big Machinery

Which will produce a regular output month after month, and which will be **ECONOMICAL** in its operation.

Our Engineering Department has been successful in erecting large plants.

We can furnish you with crushers in all sizes, mounted or unmounted, Bins, Elevating and Conveying machinery. Screens, Steam or Gasoline Engines, and all kinds of **ROAD MAKING MACHINERY**.

Our largest crusher has an opening of 50x72 inches. The No. 20 crusher a maximum opening of 24x50 inches.

We will be glad to estimate on your plant or to send you our complete catalog by return mail.

Write for Information to

THE GOOD ROADS MACHINERY CO.

FORT WAYNE, IND.

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BOSTON, 79 Milk Street
MARATHON, N. Y.

Commercial Trust Bldg., PHILADELPHIA
1632 Oliver Bldg., PITTSBURGH
KENNETT SQUARE, PA.

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